

APPLICATIONS FOR ADMISSION AND FOR TRANSFER

The Constitution provides that the Board of Direction shall elect or reject all applicants for *Admission* or for *Transfer*, and, in order to determine justly the eligibility of each candidate, the Board must depend largely upon the Membership for information.

This list is issued to members in every grade for the purpose of securing all such available information, and every member is urged to scan carefully each monthly list of candidates and to furnish the Board with data in regard to any applicant which may aid in determining his eligibility. It is the *Duty* of all *Members* to the *Profession* to assist the Board in this manner.

It is especially urged, in communications concerning applicants, that errors in the record be pointed out and a *Definite Recommendation as to the Proper Grading in Each Case* be given, inasmuch as the grading must be based upon the opinions of those who know the applicant personally, as well as upon the nature and extent of his professional experience. If facts exist derogatory to the personal character or to the professional reputation of an applicant, they should be promptly communicated to the Board. *Communications Relating to Applicants are considered by the Board as Strictly Confidential.*

The Board of Direction will not consider the applications herein contained from residents of North America until the expiration of thirty (30) days, and from non-residents of North America until the expiration of ninety (90) days from March 1, 1927.

MINIMUM REQUIREMENTS FOR ADMISSION

Grade	General Requirement	Age	Length of Active Practice	Responsible charge of work
Member	Qualified to design as well as to direct work	30 years	10 years*	5 years
Associate Member	Qualified to direct work	25 years	6 years*	1 year
Junior	Qualified for sub-professional work	18 years†	2 years*	
Affiliate	Qualified by scientific acquirements or practical experience to co-operate with engineers			
Fellow	Contributor to the permanent funds of the Society			

* Graduation from a school of engineering of recognized reputation is equivalent to 2 years' active practice.

† Membership ceases at age of 32 unless transferred to higher grade.

LIST OF APPLICANTS.

Names and Addresses of Applicants for Admission and for Transfer on this Preliminary List,
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The fact that applicants give the names of certain members as references does not necessarily mean that such members endorse.

The number in the center above each record indicates the serial number of the applicant for the current year, and that at the left the district in which he resides.

The abbreviations in Italics represent, respectively, *TT*, Total Time; *SP*, Sub-Professional Work; *P*, Professional Work; *RC*, Responsible Charge; *D*, Design. The figures showing the amount of time spent in Responsible Charge and on Design are the estimate of the Applicant. The allowance of two years for graduation and of one-third of a year for each academic year successfully completed in an engineering college without graduation is included in Total Time and Sub-Professional Work.

FOR ADMISSION

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(6) ABEL, NORMAN AUGUST, 7722 Brashear St., Pittsburgh, Pa. (Age 32. Born Pittsburgh, Pa.) Registered Prof. Engr., State of Pennsylvania. 1921 B. S. in S. E., Univ. of Pittsburgh. *TT* 2: *SP* 2. June 1916 to Dec. 1917 Draftsman and Asst. Engr., and April 1919 to Dec. 1922 Asst. Engr. with Morris Knowles, Inc., on plans for impounding reservoirs, spillways, pipe lines, small sewage-disposal plant, centrifugal pump installation and piping, industrial housing developments; improvements to pumping stations; chemical feed apparatus details; reports on filtration plants, etc.; Asst. on design of utilities for a new Canadian town; Asst. Engr. on reports on metropolitan water-supply and sewerage systems, etc. (Canada), designs of pipe lines distribution systems, circular reinforced concrete reservoir, flat-slab roof for sedimentation basin, various units and sections of power house for a filtration plant, and for installation and pitometer test of 1 500 000-gal. centrifugal pump; field investigations, tests, and design for remodeling an electric power station; installation of new equipment including generator, piping, boilers, spray pond, etc.; design and installation chemical feed apparatus; design, plans and specifications low-lift pump station; reinforced concrete design filtration plant units; rainfall and runoff studies; plans and estimate for sewerage system for housing development in Pennsylvania (250 acres); sanitary surveys and reports on water-sheds, etc. *TT* 4.4: *SP* 1.5: *P* 2.9: *RC* 2.5: *D* 1.9. Dec. 1917 to April 1919 Corporal and Sergeant, Co. D, 26th U. S. Engrs. (Water Supply) Regiment, U. S. Army, Camp Dix, N. J., and A. E. F.; preparation data and instruction sheets for hydraulic lectures reconnaissance investigation of water-supply resources on American front; and of French methods; construction of filling stations, small reservoirs, tanks pipe lines; repairs to French municipal system; pump-station rehabilitations, etc. *TT* 1.4: *SP* 0.3: *P* 1.1: *RC* 1: *D* 0.1. Dec. 1922 to July 1924 Asst. Engr., American Reduction Co., Pittsburgh, on design and plans for large reinforced concrete paper mill building, surveys of Booth and Flinn brickclay properties in Pittsburgh, and coal mines thereon, design and plans, field layout and Asst. on supervision of construction of reinforced concrete and steel rubbish-disposal plant. *TT* 1.7: *SP* 0.2: *P* 1.5: *RC* 0.8: *D* 1.5. July 1924 to date Designer, Prin. Designer, and Chf. Draftsman, Bureau of Roads, Allegheny County, Pa., design of reinforced concrete and steel highway bridges and culverts and special structures, in charge of preparation of new standards for construction and of design and plans for approx. 60 miles new county highways. *TT* 2.5: *P* 2.5: *RC* 2.2: *D* 1.5. *TT* 12: *SP* 4: *P* 8: *RC* 6.5: *D* 5. Refers to N. F. Brown, S. Eckels, J. A. Fulkman, M. G. Mansfield, C. M. Reppert, J. M. Rice, M. R. Scharff, J. D. Stevenson.

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(10) ABRAMSON, JOE MENDELSON, Box 627, Gulfport, Miss. (Age 22. Born Baton Rouge, La.) 1926 B. S. in C. E., La. State Univ. *TT* 2: *SP* 2. Jan. to July 1925 Instructor in C. E., Louisiana State Univ. June to Aug. 1926 Draftsman, Louisiana State Highway. *TT* 0.1: *SP* 0.1. July to Sept. 1925 Rodman and Aug. 1926 to date Instrumentman and Inspector with J. W. Billingsley. *TT* 0.3: *P* 0.3. *TT* 2.4: *SP* 2.1: *P* 0.3. Refers to W. T. Hogg, R. H. Mann, O. K. Olsen, B. W. Pegues.

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(9) ALLEN, EDWARD RUSSELL, P. O. Box 821, Portsmouth, Ohio. (Age 21. Born Towson, Md.) 1926 B. S., Univ. of Md. TT 2: SP 2. July 1926 to date Asst. Res. Engr., J. E. Greiner Co., Cons. Engrs., Baltimore, Md., on layout work and supervising construction on highway suspension bridge at Portsmouth, Ohio. TT 0.5: SP 0.5. TT 2.5: SP 2.5. Refers to W. T. Ballard, J. E. Greiner, A. N. Johnson, J. W. Richardson, O. H. Schroedl.

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(2) ALVORD, HENRY BISSELL, Northeastern Univ., Boston, Mass. (Age 41. Born Montague, Mass.) 1907 B. S., Mass. Inst. Tech. TT 2: SP 2. Sept. 1907 to June 1910 Asst. in Civ. Eng., Massachusetts Inst. of Technology. Summers 1905-1910 on triangulation for Harbor and Land Comm., Massachusetts. TT 3.5: SP 3.5. Sept. 1910 to June 1914 Instructor in (1 year) and Asst. Prof. of (3 years) Civ. Eng., Bowdoin Coll. TT 4: P 4. June 1914 to March 1918 with Aberthaw Constr. Co., Boston, 3½ years as Librarian in home office, and 3 months Cost Clerk at Liberty Plant, Squantum. TT 0.3: P 0.3. March 1918 to Feb. 1919 Chf. of Party with County Engr., Braintree, Mass. TT 0.9: P 0.9. Feb. 1919 to June 1920 Instructor in Mathematics and Drawing, Wentworth Inst., Boston TT 1.3: P 1.3. Sept. 1920 to date Asst. Prof. (1 year) and Prof. (5½ years) of Civ. Eng. and in charge, Dept. of Civ. Eng., Northeastern Univ. Summers 1922 and 1923 Cons. Engr. on triangulation for City of North Adams (1922) and Great Northern Ry. on 8-mile tunnel in Cascade Mts. (1926). Summers 1923 and 1924 Instructor, Harvard Univ. Eng. Camp, Squam Lake, N. H. Summer 1925 Asst. Engr., Metropolitan Planning Div., Boston. 1917-1920 (about 3 years) also Secy., American Concrete Inst. TT 6.5: P 6.5: RC 5.5. TT 18.5: SP 5.5: P 13: RC 5.5. Refers to C. S. Ell, J. W. Ingalls, A. L. Shaw, G. F. Swain, E. A. Varney, W. C. Voss.

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(11) ANGILLY, CHARLES ENOCH, Jr., 1152 West Seventy-Fourth St., Los Angeles, Cal. (Age 37. Born Providence, R. I.) 1911 B. S. in Civ. Eng., R. I. State Coll. TT 2: SP 2. June 1907 to Aug. 1908 and June to Aug. 1909 Chainman and Instrumentman, with City Engr., Providence, R. I. TT 1.2: SP 1.2. June to Aug., 1910 Instrumentman, U. S. Light House Est., topographic and land survey of reservations. April 1916 to Sept. 1917 in charge of field party, Bureau of Water Works and Supply, Los Angeles, Cal., location and construction surveys, San Fernando Valley Irrigation Dist., 6 months in charge of two field parties. TT 1.4: P 1.4: RC 0.5. Sept. 1917 to Feb. 1919 with U. S. Army, 4 months as 1st Sergeant, Co. B, 316th Engrs., over 1 year 2d Lieut., Engrs., 8 months with A. E. F. Div. of Constr. and Forestry, timber surveys, sawmill operation and road construction. TT 1.4: SP 0.3: P 1.1: RC 1.1. Feb. 1919 to date with Bureau of Water Works and Supply, Los Angeles, until June 1919 as Instrumentman and Chf. of Party on surveys, then on civil, mechanical and structural drafting, mapping, hydraulic computations, water-extension systems, water-works structures and buildings, and since May 1925 in responsible charge of Drafting Div. TT 7.9: P 7.9: RC 3.2: D 3.2. TT 13.9: SP 3.5: P 10.4: RC 4.8: D 3.2. Refers to W. W. Hurlbut, H. L. Jacques, D. A. Lane, W. Mulholland, J. E. Phillips, H. A. Van Norman.

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(11) ARMSTRONG, LEROY WHITNEY, 5415 Eighth Ave., Los Angeles, Cal. (Age 45. Born Ludington, Mich.) 1908 M. E., Mich. Coll. of Mines. TT 2: SP 2. Feb. to Oct. 1906 Surveyor, Assayer and Acting Supt., Greene Gold Silver Co., Ocampo, Chih., Mexico, Acting Mine Supt. of outlying properties. TT 0.7: SP 0.2: P 0.5: RC 0.5. Feb. 1909 to Jan. 1911 Utilityman, Shift Boss, Surveyor, Chemist, Mine Foreman and Mine Supt., New England & Clifton Copper Co., Clifton, Ariz. TT 1.9: SP 0.5: P 1.4: RC 1.4. Jan. to May 1911 Mechanic and Mill Operative, Ray Consolidated Copper Co., Hayden, Ariz., assembling equipment, mill operation on classifiers. TT 0.3: SP 0.3. July 1911 to Jan. 1912 Surveyor and Draftsman, Dixie Meadows Min. Co., Prairie City, Ore., surveying and mapping: TT 0.5: SP 0.5. May 1912 to Aug. 1917 Draftsman and Asst. Engr., Eng. Dept., Los Angeles, Cal., topographical and mechanical drafting, hydraulic, structural, highway, design. TT 5.2: SP 1.1: P 4.1: RC 4.1: D 4.1. Aug. to Sept. 1917 Asst. Engr., W. E. Hampton Co., San Diego, Camp Kearny, Cal., design of sewer system and roads. TT 0.1: P 0.1: RC 0.1. Sept. 1917 to Feb. 1918 with Q. M. Dept., U. S. Army, at Camp Kearny, until Dec. 1917 as Superv. Engr., on construction of sewers and water system, then Cons. Engr., on layout, surveying and supervising cantonment construction. TT 0.4: P 0.4: RC 0.4. Feb. to April 1918 Constr. Supt., W. E. Hampton Co., superintending construction of sewers, Naval Air Base. TT 0.2: P 0.2: RC 0.2. April 1918 to date with City of Los Angeles, until Feb. 1925 successively as Asst. Engr., on hydraulic, structural and highway design (about 9 months), in charge of subdivision directing designs and specifications, and Prin. Asst. to Head of Div., directing design, writing specifications, office administration; and since Feb. 1925 Engr. of

storm drains and structures, directing work on storm-drain construction (\$20 000 000 to \$30 000 000 program), design and specifications. *TT 8.8: P 8.8: RC 8.1: D 8.8. TT 20.1: SP 4.6: P 15.5: RC 14.8: D 13.* Refers to E. R. Bowen, H. P. Cortelyou, W. E. Jessup, J. B. Lippincott, R. W. Stewart, H. A. Van Norman, N. D. Whitman.

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(4) BAILLY, JOHN EDMON, Jr., 104 Hampden Ave., Narberth, Pa. (Age 39. Born Brooklyn, N. Y.) 1913 C. E., Syracuse Univ. *TT 2: SP 2.* June to Sept. 1912 and June 1913 to June 1926 with Pennsylvania R. R. Co., until Jan. 1916 in Constr. Dept. as Rodman, Instrumentman and Inspector, then in Valuation Dept., engaged as follows: Jan. to July 1916 Computer, checking and making calculations and assisting on surveys; July 1916 to Feb. 1917 Asst. Pilot in charge of field party on surveys and checking work of Govt. engineers.; Feb. 1917 to Aug. 1920 Structural Pilot Engr. in charge of safeguarding railroad interests, conducting Govt. engineers over carrier property, making inventory of bridges, track scales, turntables, wharves and docks; Aug. 1920 to Dec. 1924 Pilot Engr. in charge of force computing quantities in bridges and various structures, making studies; Dec. 1924 to June 1926 at Washington participating in conference with Interstate Commerce Comm. Engineers to determine prices, quantities, etc., for value on carrier property. *TT 12.9: SP 3.6: P 9.3: RC 9.3.* June 1926 to date with Long Island R. R. Co. (loaned by P. R. R. Co.) preparing studies on cost of reproduction for 1925 on bridges, tunnels, elevated structures, wharves, docks, water and fuel stations, grading and track layout and surfacing. *TT 0.7: P 0.7: RC 0.7. TT 15.6: SP 5.6: P 10: RC 10.* Refers to W. R. Edwards, M. G. Mansfield, W. F. Miller, L. Mitchell, R. R. Nace, H. D. Stowe, J. J. Vail, J. V. Walsh, E. F. Wendt.

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(1) BERNSTEIN, ABRAHAM JORDAN, 2953 Decatur Ave., New York City. (Age 35. Born Selny, Lithuania.) Licensed Prof. Engr. and Land Surveyor, N. Y. State. 1911 B. S., and 1920 C. E., Cooper Union. Jan. 1910 to Jan. 1911 Structural Draftsman, successively with Radley Steel Cons. Co., and Purdy & Henderson, New York City, structural drafting and detailing. *TT 1: SP 1.* Jan. 1911 to Jan. 1912 Structural Checker, Hinkle Iron Co., New York City, checked drawings. *TT 1: SP 1.* Jan. to Nov. 1912 Instrumentman with Tucker & Vinton, New York City, being Field Engr. on construction of reinforced concrete buildings for New York Dock Co. *TT 0.8: SP 0.8.* Nov. 1912 to Jan. 1915 Bridge Draftsman, Public Service Comm., New York City, had charge of design and preparation of working drawings of some entrances and stairways of subway and elevated stations. *TT 2.1: SP 0.6: P 1.5: D 1.5.* Jan. 1916 to March 1917 in private practice preparing shop drawings. *TT 1.2: SP 1.2.* March 1917 to April 1918 Inspector of steel construction, Bureau of Bldgs., Bronx, New York City. *TT 1.1: SP 1.1.* April 1918 to Jan. 1920 Structural Designer, Henry R. Kent & Co., Cons. Engrs., New York City, prepared structural designs for power houses for Worcester (Mass.) Elevated Co. and American Brass Co., Waterbury, Conn., bridges, coal trestle tracks for Hartford Elec. Light Co., etc. *TT 1.8: SP 0.8: P 1.5: D 1.5.* Jan. 1920 to date with M. Shapiro & Son, Engrs. and Contrs., New York City, until Jan. 1922 as Engr. prepared structural designs or took active charge of construction of five theatres, and since Jan. 1922 Chf. Engr., in charge of Eng. Dept.; directed construction of about thirty theatres and several other structures, including preparation of structural design of some (names of some given in application). *TT 7: P 7: RC 7: D 3. TT 16: SP 6: P 10: RC 7: D 6.* Refers to W. J. Ash, H. R. Burroughs, J. L. Jewell, F. Meister, M. A. Reldy, Jr., N. A. Richards, H. V. Spurr.

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(10) BINGHAM, MARION SCHUESSLER, Box 465, Decatur, Ala. (Age 45. Born Montgomery, Ala.) 1903 B. S. and B. E., Univ. of Ala. *TT 2: SP 2.* 1903 to 1905 Rodman, Inspector and Instrumentman, Louisville & Nashville R. R. Co. *TT 2: SP 2.* 1905 to 1907 Instrumentman and Asst. Engr., Southern Ry. Co., at Belzoni, Leland and Percy, Miss. *TT 2: SP 1: P 1: RC 1.* 1907 to 1908 Asst. Engr. on location, Brenson Ry., Springfield, Ga. *TT 0.5: P 0.5: RC 0.5.* 1908 to 1909 Res. Engr., and 1909 to 1910 Div. Engr., Mexican North Western Ry., at Madeira and Cusihiuiriachle, Mexico. *TT 1.5: P 1.5: RC 1.5.* 1910 to 1914 Res. State Highway Engr. in charge of North Alabama, locating, designing and building highways in seven counties. *TT 4: P 4: RC 4: D 4.* 1914 to 1916 Road Supervisor and Engr. of Madison County, Ala., locating, maintaining, building and designing highways. *TT 2: P 2: RC 2: D 2.* 1916 to 1920 County Engr., Lauderdale County, in charge of all road construction. *TT 4: P 4: RC 4: D 4.* 1921 to date in private practice at Decatur, Ala., and at present Cons. Engr. for Decatur, Albany, Cullman and Morgan Co.; designed streets, roads, several concrete structures, etc.; since 1921 also City Engr. for Decatur and Albany, also County Engr. for Morgan County. *TT 7: P 7: D 7. TT 25: SP 5: P 20: RC 13: D 17.* Refers to R. P. Boyd, J. B. Converse, G. D. Douglass, J. W. Kendrick, A. M. Lund, G. N. Mitcham.

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(4) **BLACK, RUSSELL VAN NEST**, 901 Insurance Co. of North America Bldg., Philadelphia, Pa. (Age 34. Born Hightstown, N. J.) 1916 B. S., Cornell Univ. *TT 2: SP 2.* Autumn 1916 to Autumn 1918 in private practice of landscape architecture and engineering. *TT 2: P 2: RC 2.* Sept. 1918 to Jan. 1919 graduate student in City Planning, Cornell Univ. *TT 0.4: P 0.4.* Jan. 1919-Jan. 1920 member of staff, John Nolen, Cambridge, Mass. *TT 1: P 1: RC 0.2.* Jan. 1920-March 1921 Planning Engr., Akron, Ohio, in charge of all replanning, except zoning. *TT 1.1: P 1.1: RC 1.1.* May to Sept. 1921 special commission with U. S. R. S. to make complete plan for American Falls, Idaho. *TT 0.4: P 0.4: RC 0.4.* Sept. 1921 to March 1926 in private practice of city planning, including complete plans for several cities and for number of subdivisions and parks. *TT 4.5: P 4.5: RC 4.5.* March 1926 to date Chf. Planning Engr., Regional Planning Federation of Philadelphia Tri-State Dist. *TT 0.9: P 0.9: RC 0.9. TT 12.3: SP 2: P 10.3: RC 9.1.* Refers to C. B. Ball, J. L. Crane, Jr., A. P. Davis, H. M. Lewis, J. Nolen, R. H. Randall, G. S. Webster.

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(4) **BRIGHTON, HARRY AUGUSTUS**, 50 East Washington Lane, Germantown, Philadelphia, Pa. (Age 45. Born Philadelphia, Pa.) 1906 graduated in Bldg. Constr., Drexel Inst., Philadelphia, Pa. Aug. 1901 to date Draftsman, Eng. Dept., Pennsylvania R. R., on plans, engineering problems, etc., in drafting room, Philadelphia, including original layouts of yards, terminals and track plans and profiles, design of bridge substructures, arches and walls; since June 1923 on development of plans for new passenger terminals in Philadelphia, since June 1926 Superv. Draftsman. *TT 25.6: SP 5: P 20.6: RC 10.6: D 10.* Refers to W. C. Bailey, R. G. Develin, R. Farnham, H. R. Leonard, S. H. Noyes, C. P. Schantz, S. A. Sloan, S. M. Swaab, E. B. Temple, A. R. Wilson.

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(3) **BROWN, LEON R.**, 267 State St., Rochester, N. Y. (Age 41. Born Mayfield, N. Y.) 1911 C. E., Cornell Univ. *TT 2: SP 2.* 1911 to 1913 Chf. of Field Party, Niagara Falls Power Co., in charge of all surveying, including engineering, supervision of power house, construction and taking soundings in Niagara River. *TT 2: P 2: RC 2.* 1913 to date with New York State Rys., 3 years as Head Draftsman and in charge of Eng. Corps, designing track layouts and structures and making field surveys, 2 years Asst. Engr., M. of W., Rochester Lines, in charge of Eng. Corps, and design construction and maintenance (under Engr. M. of W.), and past 8 years office and Field Engr. in charge of technical engineering on all lines of Company, including Rochester, Syracuse, Utica and Oneida Lines, involving supervision of design, writing specifications, letting and supervising contracts, also (during past year) supervised safety work as Safety Engr. *TT 13: P 13: RC 10: D 13. TT 17: SP 2: P 15: RC 12: D 13.* Refers to H. A. Abell, C. Benham, Jr., J. E. Cuff, E. A. Fisher, F. W. Fisher, F. J. Howes, H. C. Kittredge, C. A. Poole, J. F. Skinner, W. G. Wildes.

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(2) **BROWN, ROGER CHIPMAN**, 53 Whalley Ave., New Haven, Conn. (Age 26. Born Plainfield, Conn.) 1922 B. S., Sheffield Sci. School. *TT 2.* Aug. 1922 to May 1923 Structural Draftsman, Eastern Bridge & Structural Co., Worcester, Mass., drafting details on structural steel, mostly building framework. *TT 0.7.* May 1923 to date Instrumentman and Chf. of Party with Albert B. Hill, Cons. Engr., New Haven, Conn., preliminary surveys for large water supply project, etc., and last 6 months Asst. to Res. Engr. on construction of concrete dam. *TT 3.7. TT 6.4.* Refers to E. J. Beugler, C. M. Blair, A. B. Hill, E. E. Minor, E. W. Wiggins.

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(15) **BROWNE, NOLAN**, 5447 Richmond Ave., Dallas, Tex. (Age 32. Born Ft. Worth, Tex.) 1917 B. S. in C. E., Univ. of Tex. *TT 2: SP 2.* June 1911 to Sept. 1913 on blue-printing, etc., Draftsman and Checker, and summers 1914-1916 on design of details, with Mosher Steel & Machinery Co., Dallas, Tex. June 1917 to May 1920 with Texas Carnegie Steel Association, Galveston, Tex., designing and estimating steel and reinforced concrete, 1 year North Texas Sales Representative at Dallas. *TT 3: P 3: RC 1: D 2.* May 1920 to March 1926 not on engineering work. March to Oct. 1926 on structural design, with R. O. Jameson, Structural Engr., Dallas. *TT 0.6: P 0.6: D 0.6.* Nov. 1926 to date Structural Engr., Portland Cement Association, Dallas Dist. Office. *TT 0.2: P 0.2. TT 8.1: SP 4.2: P 3.9: RC 1: D 2.6.* Refers to J. H. Brillhart, C. A. Clark, R. O. Jameson, J. D. Johnson, D. Lee, R. Pace, T. U. Taylor.

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(14) **BRUMBACH, CHARLES FINNEY**, 5734 Kingsbury Blvd., St. Louis, Mo. (Age 38. Born near Columbia, Tenn.) 1909 B. E., Vanderbilt Univ. *TT 2: SP 2.* Aug. 1909 to Aug. 1914 Surveyman and Surveyor, U. S. Engr. Office, Nashville, Tenn., acting as Instrumentman on dam construction, Foreman in quarry and unloading gangs, Levelman and

Officeman on flow-line survey, Foreman, Timekeeper and Gen. Asst. to Engr. in charge, Muscle Shoals Canal, 1912 and 1913 Foreman, charge of surveys, Instrumentman and Officeman, etc. *TT 5: SP 4.3: P 0.7: RC 0.7.* Sept. 1914 to April 1918 (except one month Instrumentman, Chicago, Burlington & Quincy R. R.) with Interstate Commerce Comm., Chattanooga, Tenn., as Rodman and Jun. Civ. Engr. on road, track, railroad valuation, building and bridge work, part of time acting as Recorder. *TT 3.6: SP 3.6.* April 1918 to July 1919 Private and Corporal, U. S. Army, first with Co. A, 43d Engrs (later 46th Co., 20th Engrs.), over 1 year in foreign service, finally in Engr. Officers' School, Langres, France. *TT 1.3: SP 1.3.* Aug., 1919 to June 1926 Jun. Engr. and Asst. Highway Engr., Illinois Div. of Highways, Springfield, Ill., being Res. Engr. and Project Engr. on heavy grading and concrete road construction and office work on road plans, Dist. Engr. of design. *TT 6.9: SP 2: P 4.9: RC 4.9: D 2.8.* June 1926 to date Cons. Engr., Highway Eng. Co., St. Louis, Mo., on special investigations and quantity surveys. *TT 0.6: P 0.6: RC 0.6.* *TT 19.4: SP 13.2: P 6.2: RC 6.2: D 2.8.* Refers to J. F. Brookes, M. C. Huckaby, C. S. McArdle, A. C. Olney, B. H. Piepmeyer, F. T. Sheets, J. S. Walker.

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(14) **BURKETT, CARL COBB**, Care, State Highway Dept., Russellville, Ark. (Age 32. Born in Ouachita County, Ark.) Feb. 1914 to March 1915 student in engineering, Univ. of Arkansas. *TT 0.3: SP 0.3.* April 1915 to Jan. 1919 with Arkansas State Highway Dept., 9 months in drafting room, 1 year general office work, 2 years Chf. of field parties and in responsible charge of construction. *TT 3.7: P 3.7: RC 2.* 1919 Associate Engr., with Carter & Knoch, Engrs., in charge of field parties and construction of gravel and penetration asphalt roads. *TT 1: P 1: RC 1: D 1.* Jan. 1920 to July 1924 in private practice as Civ. Engr., road improvement districts, oil field surveys, street and sewer construction, etc. *TT 4.5: P 4.5: RC 4.5: D 4.5.* July 1924 to June 1925 Res. Engr., with Hugh R. Carter, Little Rock, Ark., on street paving contracts. June 1925 to Jan. 1927 (part of time) with a construction company as Constr. Foreman on concrete road work, Tennessee and Illinois. At present Asst. Dist. Engr., Arkansas Highway Dept., Dist. No. 8, construction, maintenance and supervision of state highways. *TT 1.1: P 1.1: RC 0.9: D 0.9.* *TT 10.6: SP 0.3: P 10.3: RC 8.4: D 6.4.* Refers to H. R. Carter, F. A. Gerig, A. M. Lund, H. C. Sellers, E. U. Stevenson, G. H. Sykes, C. O. Thomas.

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(1) **CANALS, CESAR SOCORRO**, 330 Belmont Ave., Newark, N. J. (Age 24. Born Ponce, Porto Rico.) 1926 S. B., Mass. Inst. Tech. *TT 2: SP 2.* Oct. 1926 to date Laboratory Helper, Testing Laboratory, Public Service Elec. & Gas Co., Irvington, N. J., testing power-plant equipment. *TT 0.3: P 0.3.* *TT 2.3: SP 2: P 0.3.* Refers to H. K. Barrows, C. M. Spofford.

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(1) **CARMAN, SIMON**, 297 Henry St., Brooklyn, N. Y. (Age 26. Born Troy, N. Y.) 1922 C. E., Rens. Pol. Inst. *TT 2: SP 2.* Summers 1919 and 1921 Rodman and Instrumentman, Bureau of Eng., Troy, N. Y. June to Dec. 1922 with P. B. Polhemus Co., cost work and estimating on building construction. *TT 0.5: SP 0.5.* Dec. 1922 to Feb. 1923 Draftsman, Valuation Dept., Delaware & Hudson R. R. *TT 0.2: SP 0.2.* Feb. 1923 to June 1924 Instructor in mathematics and surveying, Rensselaer Polytechnic Inst., also with G. Saxton Thompson, Cons. Engr., making preliminary surveys and plans for bridges. *TT 1.3: P 1.3.* June 1924 to April 1925 Asst. Engr., Dept. of Streets and Eng., Springfield, Mass., in charge of field work on construction of Berkshire Ave. Bridge and preliminary layouts and designs for bridges, culverts and retaining walls. *TT 0.8: P 0.8: RC 0.7: D 0.1.* April 1925 to Jan. 1926 with Sanderson & Porter on construction of Cheat Haven (Pa.) Dam in charge of field parties on layouts, diamond drill explorations and grouting foundations. *TT 0.8: P 0.8: RC 0.8.* March 1926 to date with J. A. L. Waddell, Cons. Engr., on checking and detailing movable and long-span bridges. *TT 1: P 1.* *TT 6.6: SP 2.7: P 3.9: RC 1.5: D 0.1.* Refers to E. R. Cary, F. DeSchauensee, S. Hardesty, H. H. Haggard, G. S. Thompson, J. A. L. Waddell, W. G. Williams.

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(2) **COMBS, LEWIS BARTON**, U. S. Navy Yard, Portsmouth, N. H. (Age 31. Born Manchester Centre, Vt.) 1916 C. E., Rens. Pol. Inst. *TT 2: SP 2.* Summer 1913 Inspector of paving and sewer construction, instrument work, etc., Dept. of Public Works, Rensselaer, N. Y. Summer 1914 instrument work, etc. on surveys. Summer 1915 Transitman and Note Keeper with survey party under U. S. Army, Dist. Engr.'s office, Albany, N. Y. July 1916 to Jan. 1918 Draftsman, Transitman and (4 months) in charge of field party on surveys and track location, M. of W. Dept., Mohawk Div., New York Central R. R. *TT 1.5: SP 1.5: RC 0.3.* Dec. 1917 to date with Civ. Engr. Corps, U. S. Navy, engaged as follows: Feb. 1918 to Sept. 1919 Asst. to Public Works Officer at Washington, D. C., having field super-

vision of inspection forces, plans and government control of contract work in west extension of Navy Yard and at ammunition depot, Belladere, Md., building and quay wall construction, power-distribution lines, streets, etc.; Oct. 1919 to April 1921 Treaty Engr. to Republic of Haiti, West Indies, being Engr. in charge of all government public works in Dept. of the North, at Cape Haitien, Haiti, including building roads and streets, some small building work and water front maintenance; April 1921 to June 1924 Director of highways and bridges, harbor improvement and lighthouse service at Port-au-Prince, Haiti, including reconstruction (several hundred miles) and construction (30 miles) of roads, development of highway maintenance system, design and detailing of standard creosoted timber bridges (spans 15 to 90 ft.) and construction of five bridges (4, 3 and 2 spans, 75 ft. each), organization of Lighthouse Service, and construction of five new stations, development of standard light timber pier designs; having direct supervision of Dept. of the West and general supervision for entire Republic of Haiti; July 1924 to Feb. 1925 Asst. to Public Works Officer, U. S. Navy Yard, Brooklyn, N. Y., having direct supervision of building tradeshop (charge of maintenance and repair of public works and public utilities); since Feb. 1925 Asst. to Public Works Officer, U. S. Navy Yard, Portsmouth, N. H., having direct supervision of central power plant and distribution systems; supervision of transportation systems; annual inspections and reports, quarterly estimates and budget; tests of concrete in sea water, preparing data reports, etc., for Bureau of Yards and Docks; Dec. 1917 commissioned Lieut. (J. g.) and at present Lieut. Commander. TT 9: P 9: RC 9: D 1.5. TT 12.5: SP 3.5: P 9: RC 9.3: D 1.5. Refers to G. S. Burrell, C. H. Cotter, E. R. Gayler, L. W. Greene, L. E. Gregory, F. R. Harris, B. Moreell, A. A. L. Ort, A. L. Parsons, R. L. Pettigrew, W. C. Voss, R. M. Warfield.

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(1) COURTER, JOSEPH ALLAN, Jr., 71 Cedar Ave., Montclair, N. J. (Age 22. Born Montclair, N. J.) Past 3 years student, Civ. Eng. Course, Newark Technical School (evening course). June 1921 to date with Town of Montclair, until Feb. 1923 as Rodman, then Inspector on sanitary and storm sewer and road construction, etc., and since Feb. 1926 Instrumentman on preliminary survey for Montclair outlet sewer, etc. TT 5.7: SP 5.7. Refers to W. S. Baver, H. W. Heilmann, F. D. Leffingwell, C. J. McGiffert, P. K. Miller, W. H. Warnock.

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(8) CRANDELL, JOHN STANLEY, Univ. of Illinois, Urbana, Ill. (Age 42. Born New York City.) 1904 B. S. in C. E., and 1906 C. E., N. Y. Univ. TT 2: SP 2. 1904 to 1908 Inspector, Rodman, Instrumentman, Draftsman and Asst. Engr., New York Central. TT 4: SP 3: P 1: RC 0.2: D 0.7. 1908 (4 months) in Europe studying transportation and highway engineering. TT 0.3: P 0.3. 1908 to 1911 in private practice in vicinity of New York, building retaining walls, piers, and roads on private estates. TT 2.2: P 2.2: RC 2.2: D 2.2. 1911-1912 Instructor, and 1913-1915 Asst. Prof. of Civ. Eng., Pennsylvania State Coll., developed laboratory work and made special investigation on bitumens; 1912 investigated highway work in Europe. TT 4.5: SP 1.5: P 3: RC 3. 1915 to 1926 Special Tech. Representative and later Cons. Engr., The Barrett Co., New York City, had charge of engineering work involving construction and maintenance of tarvia roads and pavements; gave lectures and conducted research on road building; made investigations and supervised construction of roads in Panama, Cuba, Mexico, Bermuda, Canada and United States; invented Spacer for wood block pavements. TT 11.3: P 11.3: RC 11.3: D 11.3. 1926 to date Prof. of Highway Eng., Univ. of Illinois. TT 0.3: P 0.3: RC 0.3: D 0.3. TT 24.6: SP 6.5: P 18.1: RC 17.1: D 14.5. Refers to W. Buehler, M. S. Ketchum, J. R. Lapham, G. E. Martin, E. D. Walker, S. Wilmot.

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(10) CURETON, RALPH BARKSDALE, 812 Cypress St., Greensboro, N. C. (Age 33. Born Greenville, S. C.) 1915 B. S. in C. E., Clemson Agri. and Mech. Coll. TT 2: SP 2. June to Nov. 1915 Masonry Inspector on Mercantile Development Co. warehouse (reinforced concrete), Charlotte, N. C., and June 1916 to May 1917 Res. Engr. reconditioning Rocky Creek hydro-electric plant, all for Southern Power Co. TT 1.4: SP 0.5: P 0.9: RC 0.9. Nov. 1915 to June 1916 Res. Engr., P. & N. Ry. Co., on construction of Belmont Branch Line. TT 0.6: P 0.6. May 1917 to Feb. 1919 Private, Corporal, Sergeant and 2d Lieut., Engrs., U. S. Army, 105th Engrs., 30th Div., and 309th Engrs., 84th Div., 6 months in foreign service. TT 1.8: SP 1.8. March 1919 to July 1920 Res. Engr. Engr. with Gilbert C. White, Cons. Engr., Durham, N. C., on municipal improvements, Farmville, N. C., paving, sewerage and water-works (\$300 000). TT 1.8: P 1.3: RC 1.3. July 1920 to Jan. 1921 in private practice of surveying at Greenville, S. C. TT 0.5: P 0.5: RC 0.5. Jan. to Oct. 1921 Res. Engr., Halifax County, N. C., on road construction. TT 0.7: P 0.7: RC 0.7. Oct. 1921 to March 1923 Res. Engr., North Carolina State Highway Comm., on road construction (hard-surface and sand-clay), Chowan County, N. C. TT 1.4: P 1.4: RC 1.4. March 1923 to date

Res. Engr., J. E. Sirrime & Co., Greenville, construction of mill buildings, sewers, water-works, preliminary surveys, etc. TT 3.9: P 3.9: RC 3.9. TT 13.6: SP 4.3: P 9.3: RC 8.7. Refers to R. B. Fuller, H. L. Hagerman, W. S. Lee, W. S. Lindsay, Jr., J. E. Sirrime, G. C. White.

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(1) DARRE-JENSSEN, LAURITZ, 200 Fifth Ave., New York City. (Age 26. Born Trondhjem, Norway.) 1923 C. E., Tech. Univ. of Norway. TT 2: SP 2. July 1923 to Jan. 1927 Asst. Engr., Norwegian State Rys., bridge detailing and surveying. TT 3.5: SP 2: P 1.5. TT 5.5: SP 4: P 1.5. Refers to H. S. Ferguson, H. H. Rode, J. W. Tower.

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(11) DeYOE, ALDEN WARREN, 741 South New Hampshire Ave., Los Angeles, Cal. (Age 24. Born Myrtle Point, Ore.) Sept. 1921 to March 1922 Student in Civ. Eng., Oregon State Agricultural Coll. June to Nov. 1922 Levelman, Coos Bay Lumber Co., Powers, Ore., on railroad survey. TT 0.4: SP 0.4. Nov. 1922 to Feb. 1923 Chainman and Instrumentman for D. L. Buckingham, Engr., Marshfield, Ore. TT 0.3: SP 0.3. Feb. 1923 to May 1924 Instrumentman and Draftsman for City of Marshfield. TT 1.2: SP 0.2: P 1. May to Nov. 1924 Head Chainman, U. S. Gen. Land Office, in Alaska. TT 0.5: SP 0.5. Feb. 1925 to May 1926 Draftsman, until May 1925 for City of Glendale, Cal., then in Civ. Eng. Dept., Southern California Edison Co. TT 1.3: P 1.3. May 1926 to date Office Engr. and Draftsman on Stevenson Creek Experimental Arch Dam. TT 0.7: P 0.7. TT 4.4: SP 1.4: P 3. Refers to R. C. Booth, W. L. Chadwick, H. W. Dennis, C. D. Marx, F. A. Noetzell, A. B. Pierce, W. A. Slater.

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(5) DOWNEY, SAMUEL BOYD, 3312 Ellerslie Ave., Baltimore, Md. (Age 30. Born Lancaster, Pa.) 1918 C. E., Lehigh Univ. TT 2: SP 2. Sept. 1919 to April 1921 Draftsman, acting as Structural Detailer, until May 1920 with American Bridge Co., Pencoys, Pa., then with H. C. Hess, Cons. Engr., Philadelphia, Pa. TT 1.5: SP 1.5. April 1921 to Oct. 1922 Draftsman with Dietrich Bros., Baltimore, Md., acting as Structural Detailer and Checker. TT 1.5: SP 1.5. Oct. 1922 to June 1923 Designer of reinforced concrete and structural steel, R. K. Meade & Co., Industrial Engrs., Baltimore. TT 0.7: P 0.7: D 0.7. June 1923 to Nov. 1924 Chf. Draftsman, Patapsco Iron Works, Baltimore. TT 1.4: P 1.4: RC 1.4: D 0.4. Nov. 1924 to June 1925 Draftsman, Bridge Dept., Baltimore & Ohio R. R., Baltimore. TT 0.6: P 0.6: D 0.3. June 1925 to date Chf. Draftsman, M. A. Long Constr. Co., Baltimore. TT 1.8: P 1.8: RC 1.8: D 1. TT 9.5: SP 5: P 4.5: RC 3.2: D 2.4. Refers to M. A. Long, G. C. Saunders, W. C. Schnabel, C. E. Sloan, L. W. Weed.

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(14) DYATT, ANDREW EARL, 601 Kansas Ave., Topeka, Kans. (Age 31. Born Almena, Kans.) 1917 B. S., and 1920 C. E., Kans. State Agrl. Coll. TT 2: SP 2. June to July 1916 Instrumentman, Louise Lake Conservation Co., Lander, Wyo. July 1917 to Jan. 1918 Draftsman and Checker, Idaho State Highway Comm. TT 0.5: SP 0.5. April to Aug. 1919 Asst. Engr., Topeka, and Aug. 1920 to Jan. 1921 and March 1921 to July 1924 Res. Engr., successively in six counties for Kansas State Highway Comm. TT 4.1: SP 0.3: P 3.8: RC 3.8: D 3.4. Aug. 1919 to Aug. 1920 Mgr., and July 1924 to date Vice-Pres., Kansas Eng. Co., Topeka. TT 3.5: P 3.5: RC 3.5: D 3.5. TT 10.1: SP 2.8: P 7.3: RC 7.3: D 6.9. Refers to W. V. Buck, L. E. Conrad, O. J. Eldmann, F. W. Epps, R. H. Pennartz, M. W. Watson.

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(13) EGAN, GEORGE RAE, Wadsworth, Nev. (Age 26. Born New York City.) 1922 B. S., Coll. of Eng., Univ. of Nev. TT 2: SP 2. May to Nov. 1921 and June 1922 to June 1924 Asst. Res. Engr. on construction, including design (3 months) and charge of bridge construction (5 months) and June 1924 to date Res. Engr. on construction, all for Nevada Highway Dept. TT 4.7: SP 0.5: P 4.2: RC 3.1: D 0.3. TT 6.8: SP 2.5: P 4.3: RC 3.1: D 0.3. Refers to H. P. Boardman, G. W. Borden, E. C. Brown, J. M. Kane, H. M. Loy, G. W. Malone.

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(11) ELKINS, URBA DeLOSS, Box 376, San Diego, Cal. (Age 41. Born Adams, Ind.) May to Dec. 1910 Timekeeper and Gen. Foreman, irrigation system, Contra Costa Constr. Co., Berkeley, Cal. TT 0.7: SP 0.1: P 0.6: RC 0.5. Jan 1910 to July 1914 Foreman, Riverside (Cal.) Water Co., Supt. of maintenance of canals and Foreman of concrete work. TT 4.5: P 4.5: RC 4.5. July to Oct. 1914 in Forest Service, fire-patrol work. TT 0.3: P 0.3: RC 0.3. Nov. 1914 to March 1915 Foreman of Constr., concrete highways and bridges. TT 0.3: P 0.3: RC 0.3. March to June 1915 Foreman of concrete highways and bridges, with Oscar Ford, Contr. TT 0.3: P 0.3: RC 0.3. June 1915 to Feb. 1917 Foreman, concrete construction, San Bernardino County Highway Comm. TT 1.5: P 1.5: RC 1.5. Feb. to April 1917 Supt.,

concrete and forms on concrete reservoir, Arrowhead Water Co., and April to July 1917 Supt. of Constr., Knight's Camp, Big Bear Valley, Cal., on septic tanks sewer system. *TT 0.5: P 0.5: RC 0.5.* Aug. 1917 to Oct. 1919 Supt. of highway construction, Highway Constr. Co., *TT 2.2: P 2.2: RC 2.2.* Oct. 1919 to May 1921 Gen. Supt. of construction and maintenance and Gen. Mgr., Palo Verde Mutual Water Co., Blythe, Cal. *TT 1.7: P 1.7: RC 1.* May 1921 to Oct. 1925 Asst. Supt., County Road Dept., Riverside County, at Riverside. *TT 4.5: P 4.5: RC 4.5.* Oct. 1925 to date Authority on road construction: Designer of specifications for macadam pavement, Mgr. of San Diego Branch, Road Oil Dept., Gilmore Oil Co., Contrs. *TT 1.3: P 1.3. TT 17.8: SP 0.1: P 17.7: RC 15.6.* Refers to J. S. Bright, S. V. Cortelyou, W. G. Gough, G. S. Hinckley, E. Q. Sullivan, P. R. Watson.

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(4) ELLIOTT, JOHN EARLE, 1530 Riverside Drive, Trenton, N. J. (Age 49. Born Hampton, Va.) 1899 A. B., Coll. of William and Mary. 1905 C. E. Cornell Univ. *TT 2: SP 2.* July 1905 to Oct. 1907 Structural Steel Draftsman, Edge Moor (Del.) Plant, Oct. 1907 to Sept. 1912 Estimator and Designer, New York City office, and Sept. 1912 to date Engr., Trenton (N. J.) Plant, American Bridge Co. *TT 21.3: SP 2.2: P 19.1: RC 14.3: D 2. TT 23.3: SP 4.2: P 19.1: RC 14.3: D 2.* Refers to C. W. Bryan, F. L. Castleman, J. H. Edwards, W. G. Grove, O. E. Hovey, H. W. Preston, J. E. Wadsworth.

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(13) FALES, JOHN CHESTER, 2624 Que St., Sacramento, Cal. (Age 44. Born Chicago, Ill.) Oct. 1903 to Jan. 1907 and Jan. 1908 to Dec. 1910 Chainman, Rodman, Instrumentman, Draftsman, Computer, Transitman and Levelman for various railroads. *TT 6.2: SP 5.7: P 0.5: RC 0.3.* Jan. to Aug. 1907 Transitman and Asst. Engr., Chicago, Milwaukee & St. Paul Ry., on construction. *TT 0.7: SP 0.2: P 0.5: RC 0.5.* Aug. to Dec. 1907 Asst. Engr., Chicago & Milwaukee Elec. Ry., Highwood, Ill., on construction. *TT 0.3: P 0.3: RC 0.3.* Jan. 1911 to Aug. 1912 in private practice, Woodburn, Ore., surveying and subdividing. *TT 1.7: P 1.7: RC 1.7.* Oct. 1912 to June 1913 Chf. of Party, Pacific Portland Cement Co., San Francisco, Cal., railroad relocation, ditch line surveys, estimates. *TT 0.7: P 0.7: RC 0.7.* June to Nov. 1913 and June to Dec. 1914 Asst. Res. Engr., and April 1921 to April 1922 Locating Engr., California Highway Comm., San Francisco and San Louis Obispo, Cal., location and construction. *TT 2.1: SP 0.6: P 1.5: RC 1.5: D 1.* Nov. 1913 to June 1914 Asst. Engr., San Jose (Cal.) Water Co., on valuation of water works. *TT 0.5: P 0.5: RC 0.5.* Jan. to Sept. 1915 Asst. Engr., State R. R. Comm., San Francisco, on hydraulic valuation. *TT 0.7: P 0.7: RC 0.7.* Sept. 1915 to March 1916 Asst. Engr., Patterson & Western Ry., Patterson, Cal., on location and construction. *TT 0.4: SP 0.2: P 0.2: RC 0.2.* March 1916 to May 1917 Jun. and Senior Engr., Interstate Commerce Comm., Washington, D. C., railroad valuation, cost data. *TT 1.2: SP 0.6: P 0.6: RC 0.6.* May 1917 to July 1919 1st Lieut., Engrs., U. S. Army, acting as Topographer, U. S. Geological Survey, and Div. Topographic Officer and Co. Commander, A. E. F. *TT 2.2: P 2.2: RC 2.2.* Aug. to Nov. 1919 Topographer, San Joaquin Light & Power Co., Fresno, Cal. *TT 0.3: P 0.3: RC 0.3.* Nov. 1919 to March 1920 with Geo. S. Nickerson, Sacramento, Cal., on hydraulic valuation, surveys. *TT 0.3: P 0.3: RC 0.3.* March to Sept. 1920 Dist. Engr., Oroville (Cal.) Wyandotte Irrigation Dist., on water supply. *TT 0.5: P 0.5: RC 0.5: D 0.5.* Oct. 1920 to March 1921 Chf. Engr., San Francisco, Napa & Calistoga Ry., Napa, Cal., on location, valuation and maintenance. *TT 0.4: P 0.4: RC 0.4: D 0.4.* April 1922 to date Asst. Hydr. Engr., State Div. of Water Rights, Sacramento, office work in connection with consideration of water rights. *TT 4.7: P 4.7. TT 22.9: SP 7.3: P 15.6: RC 10.7: D 1.9.* Refers to E. N. Bryan, M. S. Edison, T. G. Gerdine, A. Glivan, E. Hyatt, Jr., C. I. Rhodes, N. Silsbee.

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(1) FITZ SIMONS, DAVID RICHARD, Care, Engr. Dept., Puerto Castilla, Honduras. (Age 25. Born Pittsburgh, Pa.) 1926 B. S. in C. E., Tri-State Coll. of Eng. Nov. 1918 to Sept. 1920 Chainman and Rodman with Stewart & Rice, Cons. Engrs., Akron, Ohio, and F. G. Ross, C. E., C. E. Long, C. E., and Jones & Laughlin Steel Co., Pittsburgh, Pa. *TT 1.8: SP 1.8.* Sept. 1920 to June 1921 Transitman, Pittsburgh & West Virginia Ry. Co. *TT 0.7: SP 0.7.* June to Dec. 1921 Inspector, Pennsylvania State Highway Comm., Dist. No. 13, Pittsburgh, on 18-ft. reinforced slab highway construction (7 miles long). *TT 0.5: SP 0.5.* Dec. 1921 to Feb. 1923 Engr.-Foreman, West Penn Power Co., Pittsburgh, placing foundations for 200-ft. transmission towers, sagging wire, etc., pouring foundation for \$900 000 substation. *TT 1.2: P 1.2.* Feb. 1923 to Sept. 1924 Asst. Engr. (Location), Tela R. R. Co. (United Fruit Co.), topographical surveys, land subdivision, drainage systems, railroad location and maintenance, flood-control structures (layout). *TT 1.6: P 1.6: RC 1.6.* Summer 1925 Asst. Engr. with Lotan C. Read, Cons. Engr., Sandusky, Mich., in responsible charge of 14 miles of drainage project and highway design. *TT 0.3: P 0.3: D 0.3.* Sept. 1924 to June 1925 and Oct. 1925 to Sept. 1926 Student, Tri-State Coll. of Eng. Sept. 1926 to date

Engr. (municipal construction), Truillo R. R. Co. (United Fruit Co.), Boston, Mass., on layout and some supervision of construction of water supply, sewerage and paving. *TT 0.5: P 0.5: RC 0.5. TT 6.7: SP 3.1: P 3.6: RC 2.1: D 0.3.* Refers to H. B. Holmes, C. E. Long. (Applies in accordance with Sec. 1, Art. I of the By-Laws.)

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(2) **FREEMAN, CASSIUS WILLIAM**, Hockanum, Conn. (Age 27. Born East Hartford, Conn.) 8 years student, Hillyer Inst. (evening classes). May 1918 to date with Henry R. Buck, Hartford, Conn., until May 1922 as Rodman, Transitman, Chf. of Party on sewer systems, highway and general survey work, and since May 1922 general building work, being Draftsman on structural and mechanical equipment, Asst. Supt., Supervisor and Inspector on construction. *TT 8.8: SP 3.8: P 5: RC 2.* Refers to H. R. Buck, W. J. Ennis, J. T. Henderson, C. C. Kilby, G. L. Mylchreest, P. Sheldon, P. R. Williamson.

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(1) **FREIHOFNER, ANTON**, 419 East Sixty-Fourth St., New York City. (Age 52. Born Vienna, Austria.) 1900 received certificate of 1st (general) state examination (theoretical science), K. K. Technische Hochschule, Vienna, Austria. Oct. 1896 to June 1915 and Nov. 1918 to Dec. 1921 Draftsman, Asst. Engr. and Chf. Engr., Compagnie Generale des Conduites d'Eau, Liege, Belgium, drafting, surveys, reports, design, cost estimates, supervision of construction, maintenance and management of Vienna Valley Water Works, Ujpest (Hungary) Water works, and other municipal water works. *TT 21.9: SP 4.9: P 17: RC 10: D 3.* July 1915 to Oct. 1918 Lieut. of pioneers, Austrian Army, design of irrigation channel, Tirano, Albania, management of water works, Belgrade, Serbia. *TT 3.3: SP 2.3: P 1: RC 0.5: D 0.3.* July 1922 to May 1923 Draftsman, Sanborn Map Co., North Pelham, N. Y., lettering, tracing. *TT 0.9: SP 0.9.* June 1923 to Jan. 1927 Asst. Engr. with Alexander Potter, Cons. Engr., New York City, drafting, plans, design, cost estimates of water supplies, such as Kearsburg, N. J., San Antonio, Tex., Westchester Union Water Works, No. 1, New York and of sewer systems and sewage-disposal such as Union Township, N. J., Freeport and Harrison, N. Y., Springfield, Mo., joint trunk sewer for eleven communities in Essex and Union Counties, N. J. *TT 3.7: SP 0.7: P 3: RC 1.5: D 1.5. TT 29.8: SP 8.8: P 21: RC 12: D 4.8.* Refers to W. S. Bayer, S. G. Hess, A. B. Kozma, J. F. Kunesch, A. Potter, F. C. Zeigler.

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(1) **GATSLICK, SAMUEL LOUIS**, 10 Manhattan Ave., New York City. (Age 38. Born North Adams, Mass.) 1911 C. E., Cornell Univ. *TT 2: SP 2.* Summers 1909 and 1910 Rodman, and May 1912 to July 1913 Timekeeper and Paymaster, lines and grades, on rock excavation, etc., Godwin Constr. Co., New York City. *TT 1.2: P 1.2: RC 1.2.* June 1911 to May 1912 Timekeeper, Material Clerk and Paymaster, H. H. Oddie, Inc., lines and grades on 12-story concrete and steel loft building. *TT 0.9: SP 0.9.* July 1913 to May 1914 Structural Draftsman, Public Service Comm., 1st Dist., New York City, on subway design. *TT 0.6: SP 0.6.* May 1914 to Jan. 1916 Leveler, Dept. of Highways, New York State, preliminary construction, final survey work and inspection on macadam, bituminous, brick and concrete roads, inspection and in charge of waterbound macadam repair contract; estimates. *TT 1.7: P 1.7: RC 0.5.* 1916 to May 1917 intermittent employment; part of time ill. May 1917 to Jan. 1919 with U. S. Army, at 1st Plattsburg Camp, Aug. 1917 commissioned 1st Lieut., E. O. R. C., with 302d and 506th Engrs.; Jan. to Aug. 1918 overseas. *TT 1.7: P 1.7: RC 1.* June 1919 to June 1920 with G. Richard Davis & Co., New York City, as Timekeeper, Material Clerk and Asst. to Supt. on construction of \$1 250 000 loft building; acted as Asst. in charge of several departments. *TT 1: SP 0.5: P 0.5: RC 0.5.* June 1920 to Jan. 1921 miscellaneous engineering work; a short time with Kansas Highway Comm. and 2 months with J. Fred Roberts of Denver, Colo., acting as Commissary, Paymaster, etc., on road work in Nebraska. *TT 0.6: P 0.6.* Jan. 1921 to July 1922 (part of time ill) engineering and other work. July to Dec. 1922 Engr. on layout work, Raymond Concrete Pile Co. on pile contract, and March 1923 to May 1925 with same company as Engr. on foundation and piling jobs; and (part of time) Instrumentman, U. S. Govt. Engrs., New York Dist; Inspector, Standard Oil Co. of New York; Supt., Pierce Foundation Co.; and Salesman, Western Waterproofing Co. *TT 2.6: SP 0.5: P 1.1: RC 0.5.* May 1925 to March 1926 Jun. Engr., Board of Transportation, New York City, on subsurface restoration plans, in charge of field party on subway construction. *TT 0.8: P 0.8.* March to Dec. 1926 Field Engr., Heyman & Goodman Co., Inc., New York City, on subway construction, giving construction details most of time supervising subsurface restoration work. *TT 0.7: P 0.7. TT 13.9: SP 4.5: P 9.4: RC 4.5.* Refers to H. M. Bergman, J. J. Durfee, M. S. Falk, R. W. Greenlaw, H. J. Patterson, I. J. Stander, V. G. Thomassen.

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(2) **GILCHRIST, JAMES**, P. O. Box 397, St. John, N. B., Canada. (Age 43. Born Lanarkshire, Scotland.) Graduated from Allen Glens Science School and Glasgow & West of Scotland Tech. Coll. 1894 to 1902 with Warren & Stuart, Glasgow, Scotland, until 1899 as Apprentice on drawings, specifications, estimates, leveling and surveying, etc. for roadways, water and drainage works, light railways and tramways, then Chf. Asst., supervised construction of reservoir and also number of small contracts, acted as Engr. and Adviser to Trustees of deceased Contr. and completed railway near Edinburgh and reservoir in Lanarkshire. *TT 8: SP 5: P 3: RC 3.* 1902 to 1911 Asst. Engr., Coode Son & Matthews, Cons. Engrs., London, England, until 1907 drawings, estimates, etc., principally for marine work, then on construction of Tangong Pagar dock works, Singapore, Straits Settlements, comprising wet dock (24 acres) and about 1 mile of deepwater quayage. *TT 9: P 9: RC 7.* 1912 to 1916 Chf. Engr., Norton Griffiths & Co. (Canada), Contrs. for construction of harbor works at St. John, N. B., Canada (\$12 500 000). *TT 4: P 4: RC 4.* 1917 to 1919 in charge of shipbuilding yard for Grant & Horne, St. John. *TT 2.5: P 2.5: RC 2.5.* 1919 to 1926 Vice-Pres., J. A. Grant & Co., Ltd., Engrs. and Contrs., St. John. *TT 6.5: P 6.5: RC 6.5.* 1926 to date in private practice as Engr. and Contr. *TT 0.5: P 0.5: RC 0.5.* *TT 30.5: SP 5: P 25.5: RC 23.5.* Refers to H. S. Adams, A. C. D. Blanchard, J. A. Grant, A. Gray, C. M. Steeves, P. R. Warren.

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(10) **GLADNEY, THOMAS GLENN**, Agricultural and Mechanical Coll., Oktibbeha, Miss. (Age 35. Born Starkville, Miss.) 1910 B. Sc. in C. E., and 1913 M. Sc., Miss. Agri. and Mech. Coll. 1913 C. E., Univ. of Va. *TT 2: SP 2.* April to Oct. 1913 Rodman and Draftsman, Jan. to May 1914 Rodman and Inspector, Sept. 1914-Dec. 1915 Draftsman and Transitman in office of Chf. Engr., Jan. 1916 to Sept. 1917 Draftsman, Computer and Transitman, and Nov. 1917 to Sept. 1919 Transitman, Computer, Pilot and Asst. Engr., all for Atlantic Coast Line R. R. Co. *TT 5.7: SP 4.9: P 0.8: RC 0.8.* Oct.-Dec. 1913 Asst. on Eng. Corps, Pennsylvania R. R. (Lines West of Pittsburgh) on maintenance and construction. *TT 0.2: SP 0.2.* May to Sept. 1914 Asst. Engr. on construction, Haywood Royall Ashby Co., Contrs. and Engrs., Raleigh, N. C. *TT 0.3: SP 0.3.* Sept. and Oct. 1917 Asst. Engr., with J. L. Becton, Engr., development and municipal work. *TT 0.2: SP 0.2.* Sept. 1919 to date Prof. of Civ. Eng., Mississippi Agricultural and Mechanical Coll. Summers 1920 and 1921 Asst. Engr., A. C. L. R. R., on valuation. Summer 1923 Engr., M. & O. R. R., on coal-chute construction and track layout. Summer 1924 Engr., Mississippi State Highway Dept., in charge location party. Summer 1925 with Robert L. Totten, Cons. Engr., on paving and water-works construction at Corinth, Miss. *TT 7.5: P 7.5: RC 7.5.* *TT 15.9 SP 7.6: P 8.3: RC 8.3.* Refers to J. L. Becton, H. L. French, D. W. Gross, M. S. McDanel, R. B. Shepard, Jr., R. L. Totten, J. E. Willoughby.

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(5) **GONGWER, JAMES MINNICK**, 853 Van Buren St., N. W., Washington, D. C. (Age 25. Born Akron, Ohio.) 1922 B. S. in C. E., Purdue Univ. *TT 2: SP 2.* Summer 1919 Laboratory Asst., Rubber Laboratory, U. S. Bureau of Standards. Summer 1921 Machinist Helper, Stone & Webster, Baltimore, Md., on building for American Sugar Refining Co. Sept. 1922 to date Civ. Engr. with Thos. W. Marshall, Washington, D. C., until Jan. 1924 detailing structural steel and on simple design under direct supervision, since Jan. 1924 designing and checking structural steel and reinforced concrete structures, office and industrial buildings and theatres, also supervising making and checking of structural steel details. *TT 4.5: SP 1.4: RC 3.1: D 3.* *TT 6.5: SP 3.4: P 3.1: RC 3: D 3.* Refers to W. H. Barton, Jr., W. P. Darwin, E. L. Davis, L. A. Jones, T. W. Marshall, A. J. Scullen.

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(1) **GREIG, JOHN MARTIN MACFIE**, 101 Fairview Ave., Port Washington, N. Y. (Age 48. Born Balcarire, Fifehire, Scotland.) 1894-1895 student, Heriot Watt Coll. and (evenings) Royal Tech. Coll., Glasgow. May 1896 to Jan. 1900 Pupil with William D. Sang, C. E., Kirkcaldy, Scotland, on water-works and bridges, surveying, drafting and setting out work. *TT 3.5: SP 3.5.* Feb. 1900 to March 1902 Asst. to Resident, with Formans & McCall, C. E., Glasgow, on railways, field location and drafting. *TT 2.2: SP 2.2.* March 1902 to July 1904 Asst. to Chf. Engr., Glasgow Main Drainage Intercepting Sewers, being Res. Engr., on sewer in tunnel. *TT 2.3: P 2.3: RC 2.3.* July 1904 to March 1908 Contr.'s Engr., with William Kennedy, Ltd., Glasgow, on Carlisle Water Works contract (£130 000), sewer tunnel contract, Glasgow (£60 000). *TT 3.7: P 3.7: RC 3.7.* April 1908 to Dec. 1912 Contr.'s Engr., John Best & Sons, Edinburgh, on Bolton Water Works contract (£250 000). *TT 4.8: P 4.8: RC 4.8.* Feb. 1913 to May 1915 Designer, Dept. of Works, Toronto, Canada, on large storm sewer design. *TT 2.3: P 2.3: D 2.3.* 1915 to 1916 not on engineering. Sept. 1916 to Nov. 1917 Asst., with Monchel & Partners, Toronto, inspection and drafting, reinforced concrete

buildings and bridges. *TT 1.2: SP 1.2.* Dec. 1917 Draftsman, Trussed Concrete Co., Toronto. *TT 0.1: SP 0.1.* July 1918 to June 1919 Contr.'s Engr., Sherwood Constr. Co., on reinforced concrete building. *TT 1: P 1: RC 1.* June 1919 to March 1920 Chf. Designer, with T. Barbor and Wynne-Roberts, report on sewerage system for East York, Ont., Canada. *TT 0.8: P 0.8: D 0.8.* March 1920 to June 1921 Engr., Sherwood Constr. Co., on designs and estimates, concrete buildings. *TT 1.2: P 1.2: D 1.2.* 1921 to 1924 not on engineering. March 1924 to May 1925 Chf. Designer, East York Township, R. O. Wynne-Roberts, Cons. Engr., 40 miles of sewers also disposal plant. *TT 1.2: P 1.2: D 1.2.* June 1925 to date Designer with Sanborn & Bogart, Cons. Engrs., water-works and sewerage. *TT 1.7: P 1.7: D 1.7.* *TT 2.6: SP 7: P 19: RC 11.5: D 7.2.* Refers to C. L. Bogert, W. Gore, H. J. F. Gourley, T. Human, Jr., G. A. McCarthy, J. F. Sanborn, R. O. Wynne-Roberts.

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(11) HALL, ROBERT HECTOR, 1912 North Marengo Ave., Pasadena, Cal. (Age 39. Born Brooklyn, N. Y.) Jan. 1914 to Oct. 1920 with U. S. Army. 2nd Engrs., drafting, topographical and field structures, surveying. *TT 6: SP 6: D 2.* Jan. 1921 to April 1922 with United Elec. Light & Power Co., New York City, on design of electric indoor substations, etc. *TT 1.2: SP 1.2: D 1.2.* April to Oct. 1922 with McClellan & Junkersfeld, Inc., New York City, on design of power plant. *TT 0.5: SP 0.5: D 0.5.* Oct. 1922 to April 1923 with D. P. Robinson & Co., New York City, on design of plant for Lehigh Portland Cement Co. *TT 0.5: SP 0.5: D 0.5.* April to Oct. 1923 with Perry & Webster, Inc., New York City, on design and specifications for paint and varnish plants. *TT 0.5: P 0.5: RC 0.5: D 0.5.* Nov. 1923 to Nov. 1924 with Elec. Bond & Share Co., New York City, on design and specifications of power plants, warehouses and office buildings. *TT 1: P 1: RC 1: D 1.* Nov. 1924 to July 1925 with Cia. Cubana de Electricidad, Inc., Havana, Cuba (subsidiary of Elec. Bond & Share Co.), on design, specifications and field superintendence of power plants, etc. *TT 0.7: P 0.7: RC 0.7: D 0.3.* Aug. 1925 to Aug. 1926 with Wm. P. Nell Co., Inc., Los Angeles, Cal., on design, specifications and field inspection of industrial buildings. *TT 1: P 1: RC 1: D 1.* Sept. to Nov. 1926 with W. Douglas Lee, Archt., Los Angeles, on special design on concrete building. *TT 0.2: P 0.2: D 0.2.* *TT 11.7: SP 8.3: P 3.4: RC 3.2: D 7.3.* Refers to F. M. Aguirre, L. R. Cobb, J. Kappeyne, G. H. Seybolt, C. E. Winblad.

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(1) HASSAN, SIDNEY NUYHMON, 118 Reid Ave., Brooklyn, N. Y. (Age 22. Born Brooklyn, N. Y.) 1926 C. E., Pol. Inst. of Brooklyn. *TT 2: SP 2.* June to Sept. 1925 Transmittan with Fred L. Bartlett, C. E., Brooklyn, N. Y. June to Aug. 1926 Draftsman with Gibbs & Hill, Cons. Engrs., designed and drew up reinforced concrete foundations, structural poles, casting connections, etc. *TT 0.3: SP 0.3.* Sept. 1926 to date Draftsman, New York Board of Transportation, designing steel and reinforced concrete and drawing plans and sections of subways. *TT 0.4: SP 0.4.* *TT 2.8: SP 2.8.* Refers to H. R. Codwise, H. P. Hammond, C. W. Hudson, E. J. Squire.

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(10) HAVENS, RALPH EDGAR, North Munroe St., Tallahassee, Fla. (Age 44. Born Green Island, N. Y.) 1900 to 1903 student in Civ. Eng., Massachusetts Inst. of Technology. *TT 1: SP 1.* 1904 Instructor in surveying and drawing, Colorado Coll. *TT 0.5: SP 0.5.* 1906 Masonry Inspector, Atchison, Topeka & Santa Fe Ry. *TT 1: SP 1.* 1907 Foreman, Northern Colorado Power Co., on construction of hydro-plant. *TT 1: SP 1.* 1908 Gen. Foreman with Fulton (N. Y.) Contr. Co., on construction of section of New York State Barge Canal. *TT 1: SP 1.* 1909 to 1911 Constr. Supt. with Degnon Contr. Co., driving and lining tunnel, Walkill Valley syphon, New York City Aqueduct. *TT 2.7: P 2.7: RC 2.7.* 1913 to 1915 Constr. Supt. with McArthur Bros. Co., constructing power houses and installing machinery for operating locks on New York Barge Canal. *TT 2.4: P 2.4: RC 2.4.* 1915 to 1917 Supt., Rensselaer Quarry Co., building new crusher plant and operating quarry. *TT 2.3: P 2.3: RC 2.3.* 1917 to 1920 with American International Co., as Constr. Supt. on part of Hog Island and Asst. Gen. Supt. of machinery installation on boats. *TT 2.7: P 2.7: RC 2.7.* 1923 to 1925 Constr. Supt., Chas. B. Hawley & Co., building hydro-electric plants on Clarion and Youghiogheny Rivers. *TT 2.3: P 2.3: RC 2.3.* 1925 to date Constr. Supt., Gen. Eng. & Management Corporation, enlarging and building new hydro-electric plants in Florida. *TT 1.5: P 1.5: RC 1.5.* *TT 18.4: SP 4.5: P 13.9: RC 13.9.* Refers to C. B. Hawley, C. A. McCollough, C. A. Mees, J. Melgs, W. G. Sloan, S. E. Thompson.

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(10) HAYES, NATHANIEL PERKINSON, 402 West Washington St., Greensboro, N. C. (Age 25. Born Wise, N. C.) 1921 B. A., and 1922 B. S. in Civ. Eng., Univ. of N. C. *TT 2: SP 2.* July 1922 to July 1925 with McClintic-Marshall Co., Pittsburgh, Pa., as follows: July to Sept. 1922 Laborer in structural steel fabricating shops; Sept. 1922 to Sept. 1923 Draftsman, detailing; Sept. 1923 to June 1924 Timekeeper and Asst. to Erection

Foreman on steel erection; June 1924 to July 1925 Engr. and Estimator, estimating and designing steel structures. *TT 3: SP 1.9: P 1.1: RC 1.1.* July 1925 to June 1926 Engr. with William Russel Davis, Cons. Engr., Albany, N. Y., designing parts of bridge from Buffalo, N. Y. to Ft. Erie. *TT 0.9: P 0.9: RC 0.9: D 0.9.* June 1926 to date Engr., Carolina Steel & Iron Co., Greensboro, N. C., designing and checking shop drawings. *TT 0.6: P 0.6: RC 0.6: D 0.6.* *TT 6.5: SP 3.9: P 2.6: RC 2.6: D 1.5.* Refers to G. M. Braune, W. R. Davis, T. F. Hickerson, R. MacMinn, S. R. Webb.

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(12) HENDERSON, PAUL FLEMING, 1024 West Fourth Ave., Spokane, Wash. (Age 28. Born Spokane, Wash.) 1923 A. B., Stanford Univ. *TT 2: SP 2.* March to June 1918 and Dec. 1918 to Sept. 1919 Rodman, and March to Sept. of years 1920 and 1922 and June to Sept. 1921 Transitman, Washington State Highway Dept. June 1923 to July 1926 with Burns & McDonnell Eng. Co., Kansas City, Mo., until April 1925 on preliminary reports on water supplies, sewers, electrical appraisal work, etc. in various cities; April to Sept. 1925 Engr. in charge of construction of water-works at Flagstaff, Ariz., 14 miles 14-16-in. concrete pipe, 7 miles of roadwork, excavation for 60 000 000-gal. reservoir; Oct. 1925 on preliminary work on Orange County (Cal.) Outfall sewer; Nov. 1925 to July 1926 in responsible charge of earth dam at Sedalia, Mo., during construction (earth fill, solid rock excavation, concrete). *TT 3.6: P 3.6: RC 0.9: D 2.3.* July 1926 to date with Cook-O'Brien Constr. Co., Kansas City, Mo., on railway work, 62 miles of new construction, temporary bridges and pile trestles. *TT 0.7: P 0.7: RC 0.2: D 0.3.* *TT 6.3: SP 2: P 4.3: RC 1.1: D 2.6.* Refers to A. D. Butler, H. J. Doolittle, R. E. McDonnell, C. D. Marx, L. B. Reynolds.

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(2) HENRY, WESLEY LAWRENCE, 147 Milk St., Boston, Mass. (Age 37. Born New York City.) 4 years student, extension courses, Columbia Univ. 1907 to 1911 Transitman, American Real Estate Co., Bronx, New York City, assisting in field surveys, plotting notes, computations, estimates, etc. *TT 4: SP 4.* 1911 to 1914 with Terry & Tench Co., New York City, as Designer of structural steel and Field Engr. on Grand Central Terminal, some charge of work in connection with field erection of steel. *TT 3: SP 2: P 1.* 1914 to 1916 Inspector, Public Service Comm., New York State, in charge of steel erection in Route 16-1, New York subway. *TT 2: SP 1: P 1.* 1916 to 1918 Estimator in engineering subjects, John Pierce Co. *TT 2: SP 2.* 1918 to 1922 Constr. Engr., J. A. Lyons Eng. Co., general contracting, Boston, Mass., in charge field and office, including supervision of construction. *TT 4: P 4.* 1922 to 1924 in private practice of engineering, at Washington, D. C., including design and field supervision of contracts, etc. *TT 2: P 2.* 1924 to date Designer of electric power Stations with Stone & Webster, Boston, checking and designing plans for power plants. *TT 3: SP 1: P 2.* *TT 20: SP 10: P 10.* Refers to F. B. Barshell, T. M. Brassell, C. A. Crane, E. Diebitsch, L. J. Ehrhart.

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(15) HERPIN, JOSEPH OVEY, 225 Lake Shore Drive, Port Arthur, Tex. (Age 45. Born Lafayette, La.) 1902 B. S., La. State Univ. *TT 2: SP 2.* June 1902 to Aug. 1912 Asst. Engr., Lafayette (La.) Sugar Refining Co., operation and maintenance of plant and electrical machinery. *TT 10.2: SP 10.2.* Aug. 1912 to June 1919 with City of Lafayette, until June 1915 as Supt. of Public Utilities, in charge of operation of water and light plant, then Trustee of Public Property, in charge of water and light plant and public buildings; 1913 rebuilt plant and extended service mains; and 1918 enlarged plant. *TT 6.6: P 6.6: RC 6.6: D 1.6.* June to Sept. 1919 and Dec. 1922 to May 1923 in business. Sept. 1919 to Dec. 1922 City Mgr., Crowley, La., designed and built new electric plant and distribution lines; had charge of all city affairs and work. *TT 3.2: P 3.2: RC 3.2: D 2.* May 1923 to date with City of Port Arthur, Tex., until Sept. 1925 as City Engr., in charge of all engineering work, prepared plans and specifications and worked up data for improvements; then Superv. Engr., supervised improvements, designed and supervised construction of 3 000 000-gal. reservoirs and pumping station and at present supervising construction of filtration plant designed by Burns & McDonnell. *TT 3.7: P 3.7: RC 3.7: D 3.* *TT 25.7: SP 12.2: P 13.5: RC 13.5: D 6.6.* Refers to J. G. Glasgow, H. Henderson, C. W. Hughes, J. C. Nagle, A. P. Rollins, C. S. Timanus.

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(10) HILL, WILLARD ALVIN, City Engr.'s Office, Ft. Myers, Fla. (Age 36. Born Toledo, Ohio.) 1910 to 1912 Student in Eng., Denison Univ. (2 years) and Univ. of Nebraska (1 year). *TT 1: SP 1.* June 1912 to Oct. 1913 Rodman, Oct. 1913 to Oct. 1914 Instrumentman, and Oct. 1914 to April 1918 Asst. City Engr., City Engr.'s office, Toledo, Ohio, on sewers and pavements. *TT 6: SP 2.5: P 3.5: RC 3.5.* April 1918 to Jan. 1919 Field Engr., Fuller & McClintock, in charge of all field data for design of storm and sanitary sewer relief, Lima, Ohio. *TT 0.8: P 0.8.* Jan. 1919 to Jan. 1925 Constr. Supt., Jennison-Wright

Co., Toledo, in charge of construction of pavements and industrial floors. *TT 6: P 6: RC 6.* Jan. 1926 to date Asst. City Engr., Ft. Myers, Fla., on design and construction of sewers, pavements and water mains. *TT 1: P 1: RC 0.5: D 0.5. TT 14.8: SP 3.5: P 11.3: RC 10.8: D 0.5.* Refers to F. W. Cherrington, L. T. Ericson, J. R. McClintock, L. T. Owen, J. C. Pinney, L. M. Shumaker, G. W. Simmons, Jr.

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(15) **HODGES, McCloud Bradford**, Uvalde, Tex. (Age 32. Born Canton, Tex.) 1917 B. S. in C. E., and 1920 C. E., Univ. of Texas. *TT 2: SP 2.* May 1917 to April 1919 2d Lieut., Engr. Corps, U. S. Army, in United States and (11 months) France. June 1920 to May 1921 Chf. Inspector of paving, City of Wichita Falls, Tex. *TT 0.9: SP 0.9.* May 1921 to Sept. 1922 with Texas State Highway Dept., 2 months as Draftsman, then Res. Engr. in charge of construction of Federal Aid project in Burnet County. *TT 1.3: SP 0.2: P 1.1: RC 1.1.* Sept. 1922 to Sept. 1925 County Engr., Uvalde County, in charge of surveys, plans and construction of highways. *TT 3: P 3: RC 3.* Sept. 1925 to date Res. Engr., Uvalde and Medina Counties, in charge of surveys, plans and construction of 65 miles of Uvalde rock asphalt highways. *TT 1.4: P 1.4: RC 1.4. TT 8.7: SP 3.1: P 5.6: RC 5.6.* Refers to E. C. H. Bantel, F. E. Giesecke, R. O. Jameson, O. S. Petty, T. U. Taylor, R. G. Tyler.

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(6) **HORNE, ROBERT LEE**, 98 Evans Ave., Crafton Station, Pittsburgh, Pa. (Age 29. Born Wilkinsburg, Pa.) Sept. 1919 to June 1920 student, School of Applied Science, Syracuse (N. Y.) Univ. *TT 0.3: SP 0.3.* July 1918 to Sept. 1919 Field Draftsman, U. S. Coast and Geodetic Survey, being Recorder and Observer on surveys, etc. *TT 1.2: SP 1.2.* July 1920 to July 1921 Transitman, Jones & Laughlin Steel Corporation, South Side Works, on construction, etc., checking and assembling materials for mill construction. *TT 1: SP 1.* July 1921 to June 1922 Geodetic Observer, R. H. Randall & Co., on triangulation of Richmond, Va., assisted with reconnaissance survey, Chf. of Party on base line measurements, and on 87 miles of precise traverse, office computations, etc. *TT 0.9: P 0.9: RC 0.3.* June 1922 to Sept. 1925 Field Engr., Asst. City Engr. and Asst. to City Mgr., Bluefield, W. Va., street, sewer and retaining wall plans, specifications, estimates and assessments, preliminary surveys, plans and estimates on \$850 000 bond issue for street widening, new street construction and sewer system, reports and investigations for City Mgr. *TT 3.3: P 3.3: RC 2: D 1.* Sept. 1925 to date Asst. Engr., Bureau of Bridges, Dept. of Public Works, Allegheny County, Pa., being Res. Engr., Bridge Maintenance Dept., on construction of McKeesport-Duquesne Bridge (\$2 000 000), in charge of survey of triangulation system, Supt. of Constr. of six pneumatic caissons for sub-structure and other foundations, reinforced concrete piers, culvert and subway, in charge of triangulation survey on Glassport-Clairton Bridge and preliminary construction surveys. *TT 1.4: P 1.4: RC 1.4. TT 8.1: SP 2.5: P 5.6: RC 3.7: D 1.* Refers to E. C. Barton, V. R. Covell, J. H. Hawley, A. A. Henderson, C. E. Ridley, G. B. Roberts, G. D. Whitmore.

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(2) **HURLBURT, HARVEY SEYMOUR**, Drawer A, Devon, Conn. (Age 29. Born Plains, Mont.) April 1916 to Dec. 1917 and March 1920 to Sept. 1921 with Chas. T. Main, Boston, Mass., until Dec. 1917 as Stakeman, Rodman and Instrumentman, on concrete hydro-electric power dam at Holter, Mont., then Draftsman at Boston (3 months), Field Engr. on dock construction for Franklin Sugar Refining Co., at Philadelphia, Pa. (2 months) and Asst. Chf. Pile Inspector, General Inspector, Rivet Inspector on plant for American Sugar Refinery Co., Baltimore, Md. (1½ years). *TT 3.2: SP 3.2.* Dec. 1917 to June 1918 Deputy County Surveyor, Sanders County, Mont. *TT 0.5: SP 0.5.* March 1919 to Feb. 1920 and July 1922 to May 1924 with J. A. Crisfield Contr. Co., Philadelphia, on work for Connecticut Light & Power Co., until Feb. 1920 as Rodman, Instrumentman and Asst. Field Engr., on hydro-electric power dam at Stevenson, Conn., then Field Engr. on steam-power plant at Devon, Conn. *TT 2.7: SP 0.9: P 1.8: RC 1.8.* Sept. 1921 to July 1922 and May 1924 to date with U. G. I. Contr. Co., Philadelphia, as follows: Sept. 1921 to April 1922 Field Engr. and Labor Foreman on vertical retort coal-gas plant for Rochester (N. Y.) Gas & Elec. Co.; April to July 1922 Field Engr. on steam-power plant at Norristown, Pa., for Counties Gas & Elec. Co.; May 1924 to July 1925 Field Engr. and Asst. Erecting Engr., on steam-power plant (powdered fuel) for Sioux City (Iowa) Gas & Elec. Co.; July 1925 to Oct. 1926 Asst. Erecting Engr., on steam-power plant (powdered fuel) at Bew Braunfels, Tex., for Comal Power Co.; since Dec. 1926 Erecting Engr. on frequency changer substation at Devon, Conn., for Connecticut Light & Power Co. *TT 3.2: SP 0.6: P 2.6: RC 2.6. TT 9.9: SP 4.2: P 5.7: RC 5.7.* Refers to W. M. Hall, H. J. Hoard, F. E. Lamphere, J. P. Laws, P. W. Stickney.

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(9) **JUSSEN, HERBERT CHARLES**, 3 Albert Pl., Mariemont, Cincinnati, Ohio. (Age 37. Born Hurley, Wis.) 1912 B. S. E., Univ. of Mich. *TT 2: SP 2.* Oct. 1912 to June 1914 Min. Engr., Oliver Iron Mining Co., Ironwood, Mich. on surveying, geology, mapping and estimating, and July 1914 to May 1917 Min. Engr., Hayes Min. Co., Ironwood, on same work, also on design of construction and in charge of engineering. *TT 4.6: SP 1.7: P 2.9: RC 2.9: D 1.* June 1917 to Feb. 1918 Supt., Holland & Ruddy Syndicates, Biwabik, Minn., in charge of operation, design of mine layout. *TT 0.8: P 0.8: RC 0.8: D 0.4.* March 1918 to Dec. 1924 with Republic Iron & Steel Co., until June 1919 as Min. Engr., at Nagaunee, Mich., surveying, geology, mapping, estimating and design, also Safety Engr., in charge of engineering; after July 1919 Supt. at Ironwood, in charge of operation; 1923-1924 on design of new mine layout. *TT 6.8: P 6.8: RC 6.8: D 2.9.* Jan. 1925 to March 1926 Cons. Engr. at Ironwood, general mining and civil engineering, estimating, design, etc. *TT 1.2: P 1.2: RC 1.2: D 0.6.* April 1926 to date Sales Dept. Head, Elastite Expansion Joint, The Philip Carey Co., Lockland, Cincinnati, Ohio, advising and on design, etc., working with Highway and Constr. Engrs. *TT 0.9: P 0.9: RC 0.9: D 0.3.* *TT 16.3: SP 3.7: P 12.6: RC 12.6: D 5.2.* Refers to M. E. Cooley, G. B. Edwards, C. V. R. Fullenwider, F. Hutchinson, H. L. Rogers, C. W. Spooner, S. W. Tarr.

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(1) **KAYSER, ROBERT**, 436 Thirty-Second St., Woodcliff, N. J. (Age 39. Born St. Gallen, Switzerland.) 1920 C. E. (Dipl. Eng.) Technische Hochschule (Univ.), Stuttgart. *TT 2: SP 2.* 1902 to 1908 (vacations) and July 1909 to Oct. 1918 Instrumentman, Inspector, Time and Cost Keeper and Asst. to and Representative of his father, A. Kayser, Constructor of reinforced concrete public and private buildings. *TT 7.6: P 7.6: RC 7.6.* May-Dec. 1920 with L. Herrewich as Engr. in charge and Supt. for construction of freight yard at Lambrecht. *TT 0.7: P 0.7: RC 0.7.* 1921 and 1922 Designer and Engr.-in-Chg. with H. Zeigler, Engrs. and Constructor, Werel-Rhein, on industrial buildings, for steel mills, coal mines, etc. *TT 2: P 2: RC 1: D 1.* Jan. to Dec. 1923 Engr. in charge and Designer and Checker, Harbor and R. R. Dept., with August Thyssenhutte, steel mills and coal mines, Hamborn, Germany. *TT 0.9: P 0.9: RC 0.5: D 0.5.* April-Nov. 1924 Office and Field Draftsman, Bronx Parkway Comm., Bronxville. *TT 0.6: SP 0.6.* Nov. 1924 to April 1925 Reinforced Concrete Designer, Electric Bond & Share Co., New York City. *TT 0.3: P 0.3: D 0.3.* April to July 1925 Reinforced Concrete Draftsman, Dwight P. Robinson & Co., Inc., New York City. *TT 0.2: P 0.2: D 0.2.* July 1925 to Jan. 1926 Reinforced Concrete Designer, Barney-Ahlers Constr. Corporation, New York City, on flat-slab industrial buildings. *TT 0.5: P 0.5: D 0.5.* Jan. to Sept. 1926 Reinforced Concrete Designer and Checker, Anglo Chilean Consolidated Nitrate Corporation, New York City, designing and checking reinforced concrete structures for Coya Norte Plant, Chile. *TT 0.7: P 0.7: D 0.7.* Sept. 1926 to date Structural Designer, Dwight P. Robinson & Co., Inc., design of reinforced concrete for industrial buildings, railroad, assistance to Job Engr. *TT 0.3: P 0.3: D 0.3.* *TT 15.7: SP 2.6: P 13.1: RC 9.7: D 3.4.* Refers to W. J. Barney, W. C. Bodycomb, A. G. Hayden, J. G. Hocke, L. G. Holleran, S. W. Mosher, G. Schoblinger.

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(2) **KENNEDY, JOHN LESTER**, 26 Cedar St., Hopkinton, Mass. (Age 25. Born Milford, Mass.) 1924 C. E., Notre Dame Univ. *TT 2: SP 2.* June 1923 to Feb. 1926 Office Engr. for City Water Works, South Bend, Ind., also aided in consulting work of John W. Toyne, including design and layout of sewers and water-supply systems, surveys and city subdivision work. *TT 2.7: P 2.7: RC 1: D 1.* Feb. to Nov. 1926 Chf. of Party with Mees & Mees, Inc., Charlotte, N. C. on transmission line survey and Chf. Inspector on submerged sewer system. *TT 0.7: P 0.7: RC 0.7.* *TT 5.4: SP 2: P 3.4: RC 1.7: D 1.* Refers to H. R. Falsen, C. A. Mees, W. S. Moore, D. Moomaw, J. W. Toyne.

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(14) **KINSEY, MILTON MANSFIELD**, 6321 Alabama Ave., St. Louis, Mo. (Age 30. Born St. Louis, Mo.) Student in Civ. Eng., Univ. of Wisconsin (Sept. 1914 to Jan. 1916) and Washington Univ., St. Louis, Mo. (Jan. 1916 to Jan. 1917 and Sept. 1919 to Jan. 1920). *TT 1: SP 1.* June to Sept. 1913 Chainman and Rodman, E. R. Kinsey & Bros., Civ. Engrs. St. Louis. June to Sept. of years 1914 and 1915 with City of St. Louis, Sewer Dept., as Chainman, Rodman, Estimator and Instrumentman, part of time being Asst. in charge of field party on water shed surveys, etc. June to Sept. 1916 with Duluth & Iron Range Ry. at Two Harbors, Minn., as Instrumentman, later in charge of party making sounding survey and inspecting dredging on Lake Superior and of inspection of reinforced concrete foundations of 3 000-ft. structural steel ore loading dock. Jan. to April 1917 with St. Louis, San Francisco Ry., Eng. Dept., as Instrumentman and in charge of party on maintenance of way

layout and construction, later Prin. Asst. to Res. Engr. on layout and construction of shops, engine houses, large freight classification yards at Newburg, Mo. *TT 0.3: P 0.3.* April 1917 to Sept. 1919 with U. S. Army, Corps of Engrs., 1 year as Sergeant Asst. and in charge of narrow-gauge railway location and construction on British Front, 1½ years Lieut. of Engrs., first as Asst. then Res. Engr. on design, layout and construction of shops, engine houses, power plant, buildings, roads, etc., also large freight interchange yards, at Abainville, France, also location and construction of 30 miles main line narrow-gauge railway, including a 40-ft. span swing bridge and a 100-ft. river crossing. *TT 2.5: P 2.5: RC 2.5: D 1.* Jan. to Aug. 1920 with St. Louis, San Francisco Ry., as Valuation Engr., estimating grading quantities, etc., estimating construction costs, etc. *TT 0.5: P 0.5: RC 0.2.* Aug. 1920 to March 1921 Works Engr., Fulton Iron Works Co., St. Louis, on design and construction of small buildings and alterations, design and installation of individual motor drives for machine tools and of special foundry machinery. *TT 0.6: P 0.6: RC 0.6: D 0.6.* March to June 1921 Asst., United Rys., St. Louis, nominally in charge of field work on relocation and reconstruction of 2 miles suburban electric railway. *TT 0.3: P 0.3: RC 0.3.* June 1921 to Aug. 1924 with St. Louis San Francisco Ry., 2½ years as Asst. to Valuation Engr. on development of unit cost data and preparation of protest to tentative valuation, later in charge of field party investigating value of lands, and 7/10 year Asst. and Acting Res. Engr. on final location and construction of grade and curve elimination at Dixon, Mo. *TT 3.2: P 3.2: RC 3.* Aug. to Dec. 1924 special traffic studies, United Rys., Transportation Dept. *TT 0.4: P 0.4.* Dec. 1924 to date with C. E. Smith & Co., Cons. Engrs., as Asst. Engr., on detailed study of transportation and traffic conditions in St. Louis, recommendations on rerouting of street cars, construction of subways and elevated, estimates of cost, preparation of report on rapid transit for St. Louis, etc. *TT 2.1: P 2.1: RC 1. TT 10.9: SP 1: P 0.9: RC 7.6: D 1.6.* Refers to W. B. Bennett, L. C. Datz, M. H. Doyne, G. C. Graeter, R. J. Lockwood, W. E. Rolfe, C. E. Smith.

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(1) KRYNINE (CRININ), DMITRY PAVLOVITCH, M. Tcherkassky per. ¼, k. 35, Moscow, Russia. (Age 49. Born Moscow, Russia.) 1901 Engr. of Ways of Communication, Inst. of Ways of Communication, St. Petersburg (now Leningrad), Russia. *TT 2: SP 2.* Summers 1896-1900, and June 1901 to Jan. 1906 with Transsiberian Ry., during summers as Chalmers, Draftsman and Inspector; June 1901-Jan. 1904 on construction of mountain line around Baikal Lake, as Leveler and Instrumentman on design of trackage and substructures (Nov. 1901-April 1902), and (May 1902-Jan. 1904) Res. Engr. in complete charge of 12-mile residency (two bridges); Feb. 1904 to Jan. 1906 Res. Engr. at Sludianka, Baikal Lake, maintenance of way. *TT 4.7: P 4.7: RC 3.8.* May 1906 to July 1907 Jun. Office Engr., Russian Ministry of Ways of Communication, in technical drawing-room, records of several Siberian works. *TT 1.2: P 1.2.* Sept. 1907 to May 1909 special student, School of Roads and Bridges, Paris, France. July to Oct. 1909 with Mr. Millot, Contr., Buenos Aires, Argentine Republic, terminal station of Ferro-Carril de la provincia de Buenos Aires, and reinforced concrete works in the town. *TT 0.3: P 0.3.* Nov. 1909 to March 1917 Highway Engr., Govt. of Argentine Republic, until May 1910 on supervision of earthwork and bridge construction, zona del Ferro Carril Oeste and after June 1910 Chf. of a highway section, in complete charge of surveys, structures, earth and bridge work, zona del Ferro Carril Central Argentine; also (spare time) with Dirks & Dates, Buenos Aires, on design of reinforced concrete bridges, structures, elevators and piers. *TT 7.3: P 7.3: RC 7.3: D 6.7.* May 1917 to July 1918 Highway Inspector and Acting Chf. of Research office, Russian Central Highway Dept. *TT 1.2: P 1.2: RC 1.2: D 1.2.* Aug. 1918-May 1919 Lecturer of Highway Eng., and May 1919 to date Prof. of Highway Eng., Moscow Superior Technical School and Moscow Inst. of Transportation Eng. (formerly Ways of Communication); also with Technical Council of Central Committee of Construction (examination of projects of work) 3 years as Member, then Chairman and 1½ years Gen. Inspector of Russian Highways. *TT 8.4: P 8.4: RC 8.4: D 8.4. TT 25.1: SP 2: P 23.1: RC 20.7: D 16.3.* Refers to R. Dominguez, J. B. Eglazaroff, S. D. Karelscha, R. Kurtz, V. E. Timonoff.

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(1) LAFFERTY, EDWIN FORREST, 387 Greenmount Ave., Grantwood, N. J. (Age 22. Born Cleveland, Ohio.) 1921 to date Chf. of Party, with McClave & McClave, municipal engineering and surveying. *TT 5.5: SP 4: P 1.5: RC 1.5.* Refers to W. B. Delehanty, M. Hendee, L. S. Howe, S. W. McClave, Jr., R. Schweizer, Jr.

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(1) LAND, RICHARD IRVING, 145 Audubon Ave., New York City. (Age 26. Born Lima, Ohio.) 1925 C. E., Cornell Univ. *TT 2: SP 2.* June to Sept. 1924 Draftsman, Interborough Rapid Transit Co., New York City. March to May 1925 Inspector, Ward-Kurz Co., Ithaca, N. Y., on pile foundation for a high school. *TT 0.2: SP 0.2.* May to June 1925 Draftsman

and Asst. with Mead & Scheidhelm, New York City, on erosion tests in Cornell Univ. canal. *TT 0.1: SP 0.1.* June 1925 to Jan. 1927 Asst. Engr., and at present Engr. in charge of Eng. Dept. at Columbia-Presbyterian Medical Center, Marc Eidlitz & Son, New York City, in responsible charge of line and grade work, etc., on building construction, foundation work, stone setting, partition work, etc.; also made computations and supervised laying out on paper of three allotments (approx. 240 acres each) of realty corporations in New York City. *TT 1.6: SP 1: P 0.6. TT 3.9: SP 3.3: P 0.6.* Refers to F. A. Barnes, E. N. Burrows, F. W. Gardiner, C. N. Kent, E. W. Schoder, L. C. Urquhart, C. L. Walker.

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(11) **LATHAM, ROBERT LEROY**, 801 Larch St., Inglewood, Cal. (Age 39. Born Minneapolis, Minn.) Sept. 1907 to Jan. 1910 student, Civ. Eng. course, Univ. of Minnesota. *TT 0.7: SP 0.7.* Jan. 1910 to May 1911 Rodman, Northern Pacific Ry., did instrument work, etc. *TT 1.4: SP 1.4.* May to Dec. 1911 Draftsman and Constr. Supt., Iowa Mausoleum Co., Waterloo, Iowa. *TT 0.5: P 0.5: RC 0.2: D 0.2.* Dec. 1911 to Aug. 1912 Structural Draftsman and Designer, Mead Morrison Mfg. Co., Chicago, Ill., designing coal-dock bridges, screening plants, etc. *TT 0.7: SP 0.2: P 0.5: D 0.5.* Aug. 1912 to Nov. 1913 Structural Detailer, American Bridge Co., Minneapolis, Minn. *TT 1.2: SP 1.2.* Nov. 1913 to Oct. 1916 Structural Designer, Bridge Dept., Great Northern Ry. Co., St. Paul, Minn., designing bridges, inspection and supervision. *TT 2.9: P 2.9: RC 0.4: D 2.5.* Oct. 1916 to Sept. 1917 designing and estimating reinforced concrete buildings, C. A. P. Turner Co., Minneapolis. *TT 0.9: P 0.9: RC 0.5: D 0.4.* Sept. 1917 to June 1920 designing and in charge of design of engineering equipment for Richards Wilcox Mfg. Co., Aurora, Ill., 2 years as Chf. Draftsman. *TT 3: P 3: RC 2: D 1.* June 1920 to Jan. 1921 in business. May 1921 to July 1922 Structural Designer, Public Works Dept., at Mare Island (Cal.) Navy Yard. *TT 1.2: P 1.2: D 1.2.* Sept. 1922 to Oct. 1925 Chf. Structural Designer, Allied Architects Association, Los Angeles, Cal., under Mgr., Production Dept. *TT 3.1: P 3.1: RC 3.1.* Nov. 1925 to date in private practice as Latham Eng. Co.; since Aug. 1925 also Chf. Engr. for Walker & Eisen Co., Archts. *TT 1.3: P 1.3: RC 1.3. TT 17: SP 3.6: P 13.4: RC 7.6: D 5.8.* Refers to M. C. Ayers, J. E. Byers, E. A. Evans, G. W. Miller, C. E. Noerenberg, L. J. Waller.

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(11) **LIGHTBURN, CHARLES McCONNELL**, 347 Equitable Bldg., Denver, Colo. (Age 42. Born Moundsville, W. Va.) Sept. 1903 to June 1907 student, School of Eng., Univ. of Colorado, and ($\frac{1}{2}$ year and summer vacations) in mines, and drafting for Clason Map Co. *TT 1.* June 1907 to July 1908 Rodman and Draftsman, Greeley & Denver R. R., and (3 months) on land and mine surveying. *TT 1.1: RC 0.2.* July to Aug. 1908 Draftsman, Denver & Salt Lake R. R. *TT 0.2.* Aug. 1908 to Oct. 1911 Draftsman, Office Engr. and Chf. Draftsman, field and office, location and construction, Denver, Laramie & Northwestern R. R. *TT 3.1: RC 1.5: D 0.8.* Oct. to Dec. 1911 Engr. in charge of party, irrigation surveys, Denver-Laramie Realty Co., locating proposed transmountain tunnel and diversion system in Northern Colorado. *TT 0.2: RC 0.2.* Dec. 1911 to March 1912 special work on water fillings for H. R. Phillips, Denver, Colo. *TT 0.2: SP 0.2.* March 1912 to date with Denver & Rio Grande R. R. Co. as follows: March 1912 to Feb. 1917 Draftsman; Feb. 1917 to July 1918 Asst. Engr., Assisting on investigations and reports on proposed electrification of mountain division, recommendation for improvements and layout for terminal; July 1918 to July 1925 Asst. Valuation Engr., general supervision of Valuation Dept. in charge of Chf. Engr.; since July 1925 Valuation Engr., conducting Valuation Dept. *TT 14.7: RC 5.5: D 0.3. TT 20.5: RC 7.6: D 1.1.* Refers to C. A. Betts, L. E. Bishop, H. S. Crocker, W. B. Freeman, M. C. Hinderlider, A. O. Ridgway, F. W. Whiteside.

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(8) **LLOYD, DANIEL BOONE, Jr.**, Transportation Bldg., Univ. of Illinois, Urbana, Ill. (Age 25. Born Glendale, Md.) 1923 B. S. in C. E., George Washington Univ., Washington, D. C. *TT 2.* Jan. to Sept. 1920 with Coast and Geodetic Survey, Washington, D. C., 5 months as Geodetic Computer, astronomical and geodetic computations, and 3 months Field Asst., Instrumentman. *TT 0.7.* Oct. 1920 to May 1921 and Oct. 1921 to May 1922 (part of time) Student Asst. in Physics, George Washington Univ., July 1923 to Oct. 1926 Eng. Asst., Gen. Eng. Dept., Chesapeake & Potomac Telephone Co., Washington, D. C., 3 months general training course, 6 months inventory, inspection and appraisal work, 2½ years writing specifications, directing drafting and preparing plans for extension of telephone plant and installation of central office and associated equipment. Feb. 1925 to Oct. 1926 (part of time) Lieut., U. S. Army; commissioned 2d Lieut., Engr. Officers Reserve Corps, and later 2d Lieut. Infantry in D. C. National Guard; April 1926 appointed 1st Lieut., Infantry, in command of Headquarters Detachment, 29th Div. and special troops,

D. C. National Guard. *TT 3.2: RC 2.* Oct. 1926 to date Asst. Instructor, Dept. of Gen Eng. Drawing, Coll. of Eng., Univ. of Illinois, in charge of teaching three classes. *TT 0.4: TT 6.3: RC 2.* Refers to W. Bowle, O. B. French, H. H. Jordan, J. R. Lapham, H. Miller.

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(15) **LOFTIN, HAROLDE TURNER**, 1307 Arlington St., Houston, Tex. (Age 22. Born Houston, Tex.) Sept. 1923 to Jan. 1926 student, Rice Inst. *TT 0.8: SP 0.8.* June to Sept. of years 1924 and 1925 Rodman, Houston Light & Power Co., surveys, etc. Jan. 1926 to date Draftsman, City of Houston, Tex., topography, storm and sanitary sewer profiles, settling tanks, pumping stations, disposal-plant records, office calculations. *TT 1.2: SP 1.2. TT 2: SP 2.* Refers to G. R. Bringhurst, J. B. Dannenbaum, J. G. McKenzie, J. C. McVea, J. H. Rafferty, L. B. Ryon, Jr.

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(4) **MACBEAN, JAMES ROY**, 1026 South Fifty-Seventh St., Philadelphia, Pa. (Age 42. Born Philadelphia, Pa.) April 1903 to Dec. 1905 Tapeman, Rodman and Instrumentman, Chicago, Rock Island & Pacific Ry. *TT 2.7: SP 2.7.* Jan. to March 1906 Rodman, March 1907 Instrumentman, and Dec. 1911 to Nov. 1917 Draftsman, Pennsylvania R. R. *TT 6.3: SP 6.3.* April 1906 to Feb. 1907 Asst. Engr., Spanish American Iron Co., Daiquiri, Oriente, Cuba in charge of railroad construction and mining. *TT 0.8: P 0.8: RC 0.8: D 0.2.* April 1907 to May 1910 and July to Dec. 1911 Draftsman and Chf. of Party with Ruddach & McCracken, Borough Engrs. and Land Surveyors, Jenkintown, Pa., on road mapping for State of Pennsylvania, land surveying and sub-division work, after July 1911 drafting road maps. *TT 3.5: SP 1: P 2.5: RC 2.5: D 0.6.* May 1910 to Jan. 1911 Instrumentman, Chicago, Great Western Ry. *TT 0.7: SP 0.7.* March to July 1911 Engr., Spanish American Iron Co., El Cuero, Oriente, Cuba, on mining work. *TT 0.3: SP 0.3.* Nov. 1917 to May 1918 Engr., Scofield Eng. Co., Cons. Engrs., Philadelphia, Pa., water report for City of Portsmouth, Va., surveying and map making. *TT 0.5: SP 0.5.* June to Oct. 1918 Asst. Supt., Austin Co., reinforced concrete roundhouse construction for Philadelphia & Reading Ry. *TT 0.3: SP 0.3.* Aug. 1919 to July 1923 Erecting Engr., U. G. I. Contr. Co., Philadelphia, concrete construction. *TT 1.5: P 1.5: RC 1.5.* July 1923 to Aug. 1924 Chf. of Party with Albright & Mebus, Philadelphia, surveying and subdivision work. *TT 1.1: P 1.1: RC 1.1.* Aug. 1924 to date Res. Engr., New Jersey State Highway Dept., Camden, on construction. *TT 2.4: SP 1.5: P 0.9: RC 0.9: D 1. TT 20.1: SP 13.3: P 6.8: RC 6.8: D 1.8.* Refers to F. C. Claus, H. W. Giffin, E. H. Maier, C. F. Mebus, E. M. Scofield, J. A. Williams, M. A. Zook.

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(1) **MACDONALD, EUGENE LELAND**, 150 Broadway, New York City. (Age 36. Born San Francisco, Cal.) 1913 B. S., Mass. Inst. Tech. *TT 2: SP 2.* June 1913 to June 1914 Asst. to Prof. C. M. Spofford, Massachusetts Inst. of Technology, some designing. *TT 1: SP 0.6: P 0.4: D 0.3.* June 1914 to March 1915 Jun. Engr., Public Service Comm. of New York, on subway work, estimates, Head of Party on field work, some design. *TT 0.8: SP 0.4: P 0.4: RC 0.3: D 0.2.* April 1915 to April 1917 Asst. Engr., Erection Dept., American Bridge Co., assisted in engineering supervision of erection of Hell Gate Bridge and approaches, later in engineering charge of erection of smaller structures, lift bridges, etc. *TT 2: SP 0.5: P 1.5: RC 1: D 0.5.* May 1917 to Sept. 1919 with U. S. Army, 11th Engrs. of New York, on railroad, bridge and highway engineering; 1919 resigned commission as Capt., Corps of Engrs. *TT 2.4: SP 0.8: P 1.6: RC 1.6: D 0.6.* Oct. 1919 to April 1920 Res. Engr., Florida State Road Dept., on Victory Bridge over Apalachicola River at Chattahoochee. *TT 0.6: P 0.6: RC 0.6: D 0.2.* May 1920 to Nov. 1921 Industrial Engr., Timken Detroit Axle Co., Detroit, shop planning, routing, tool design, etc. *TT 1.6: P 1.6: RC 1.2: D 0.8.* Dec. 1921 to June 1924 with Eng. Dept., Canadian Bridge Co., Walkerville, Ont., drafting and designing; made complete design and estimate (under supervision of Chf. Engr.) for bid on Sydney Harbor bridge; designed transmission towers, etc. *TT 2.6: SP 0.8: P 1.8: RC 1.7: D 1.8.* June 1924 to June 1926 Asst. Engr., Canadian Govt., on Welland Ship Canal; checked and made designs, estimates and reports on five types of movable bridges for 22 canal crossings. *TT 2: P 2: RC 2: D 2.* June 1926 to date with J. A. L. Waddell, Cons. Engr., in charge of work on Port Authority Staten Island bridges. *TT 0.6: P 0.6: RC 0.6: D 0.5. TT 15.6: SP 5.1: P 10.5: RC 9: D 6.9.* Refers to W. T. Chevalier, S. Hardesty, W. B. Parsons, G. F. Porter, C. M. Spofford, H. H. Starr, J. A. L. Waddell.

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(4) **MCCORMICK, WILLIAM**, 4824 North Tenth St., Philadelphia, Pa. (Age 48. Born Philadelphia, Pa.) 1904 to 1906 studied railroad engineering, International Correspondence Schools, Scranton, Pa. Sept. 1901 to Jan. 1906 Rodman to Levelman, Philadelphia & Reading Ry. Co. *TT 4.3: SP 4.3.* Jan. 1906 to Aug. 1907 Transitman, R. R. Constr. Co. of

Philadelphia, in charge of layout work, estimates, etc., on construction of 20 miles trolley road from Elizabeth to Milltown, N. J. *TT 1.6: P 1.6.* Aug. 1907 to April 1910 Senior Instrumentman, Chf. of Party, Pennsylvania Tunnel & Terminal R. R. Co. (Pennsylvania R. R.), New York City, in charge of field work for construction of a terminal-station yard, etc.; also Asst. Engr. on electrification, in charge of construction of substations, high-tension pole lines, etc., on 5 miles, Newark to Bergen Hill, N. J. *TT 2.7: P 2.7: RC 2.7.* April to Nov. 1910 Asst. Engr., State of New Jersey, in charge of party on valuation of railroad and canal properties. *TT 0.6: P 0.6: RC 0.6.* Nov. 1910 to date Transitman and Asst. Engr. in Chf. Engr.'s office, Reading Co., Philadelphia, on engineering works, including third-and fourth-track work, change of alignment, change of course of Schuylkill River at Port Clinton, Pa., new bridge across Schuylkill River, North of Port Clinton, Pa., etc. *TT 16.1: P 16.1: RC 11.1: D 5. TT 27.3: SP 6.3: P 21: RC 14.4: D 5.* Refers to E. Y. Allen, R. L. D. Ashbridge, E. F. Dawson, C. Dillenbeck, L. Focht, S. T. Wagner.

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(12) **McFARLAND, KENNETH CUSHING**, 718 North Junett St., Tacoma, Wash. (Age 46. Born Polo, Ill.) 1905 B. S. in C. E., Univ. of Wash. *TT 2: SP 2.* June 1905 to Aug. 1906 Instrumentman, Alaska Central Ry. *TT 1.2: SP 1.2.* Sept. 1906 to June 1907 Draftsman, June 1907 to March 1911 Res. Engr. on construction in Western Montana and Idaho, completing three residences, April 1912 to April 1915, Res. Engr. and Asst. to Div. Engr. on second-track construction, Minneapolis to Aberdeen, S. Dak., and June 1915 to Sept. 1917, Asst. Engr. on valuation from Moberge, S. Dak., to Seattle, Wash., in charge of party making special investigations, all for Chicago, Milwaukee & St. Paul Ry. *TT 9.9: SP 0.8: P 9.1: RC 9.1.* April 1911 to April 1912 Res. Engr. on construction, Canadian Northern Ry., Nipigon, Ont., Canada. *TT 1: P 1: RC 1.* Nov. 1917 to April 1923 Pilot Engr. on valuation, piloting Interstate Commerce Comm. road and track parties, until Feb. 1919 with Northern Pacific Ry., Minneapolis to Seattle, then with Union Pacific Ry., in Nebraska and Kansas, also in San Francisco and Washington, D. C., adjusting quantities and prices. *TT 5.5: P 5.5: RC 5.5.* April to Dec. 1923 with Wyoming, North & South Ry., until July 1923 as Locating Engr., on 75 miles, Sheridan to Casper, Wyo., then Div. Engr. in charge of construction (110 miles). *TT 0.7: P 0.7: RC 0.7.* June 1924 to Feb. 1925 Res. Engr., Wyoming State Highway at Casper. *TT 0.7: P 0.7: RC 0.7.* June 1925 to March 1926 Special Engr., power-plant construction, City of Tacoma, Wash., checking contractor and making tests of constant angle arch dams. *TT 0.8: SP 0.8.* April 1926 to date Asst. Engr. of design and in field in charge of preliminary surveys and diamond drilling for hydro-electric power plant (32 000 h. p.) for City of Aberdeen, on Wynooche River in Olympic Mountains. *TT 0.8: P 0.8: RC 0.4: D 0.4.* *TT 22.6: SP 4.8: P 17.8: RC 17.4: D 0.4.* Refers to C. H. Bowman, G. K. Farner, D. C. Fenstermaker, A. G. Holt, W. F. McDonald, J. L. Stannard, T. H. Strate, P. E. Thian.

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(8) **McNAMEE, HAROLD GRAFTON**, 258 South Madison Ave., Congress Park, Ill. (Age 28. Born Durand, Mich.) 1921 B. S. E., Univ. of Mich. *TT 2: SP 2.* Oct. 1921 to Aug. 1922 Asst. Engr., Froelich & Emery Eng. Co., Detroit, Mich., being Estimator of grading quantities, and Chf. of Party on track appraisal. *TT 0.8: SP 0.4: P 0.4: RC 0.4.* Aug. 1922 to May 1923 Chf. of Party, Washington Suburban San. Dist., Hyattsville, Md., on surveys, levels, cross-sections, staking out sewer and water lines, inspecting sewer and water-main construction, etc. *TT 0.8: SP 0.2: P 0.6: RC 0.6.* May to Nov. 1923 Asst. Engr. with Indianapolis San. Dist. and C. H. Hurd, Cons. Engr. for District, inspecting dehydration building, Indianapolis Sewage Works, being Chf. Inspector during construction of 500 000-gal reservoir at Seymour, Ind., and in charge of sanitary survey at Seymour. *TT 0.5: SP 0.4: P 0.1: RC 0.1.* Nov. 1923 to date Asst. Engr., San. Dist. of Chicago, being Designer of sewers and allied structures. *TT 3.2: SP 1.7: P 1.5: D 1.5. TT 7.3: SP 4.7: P 2.6: RC 2.6: D 1.5.* Refers to O. L. Eltinge, C. E. Grunsky, W. C. Hoad, C. H. Hurd, C. T. Johnston, R. B. Morse, L. Pearse, H. P. Ramey, H. S. Ripley.

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(1) **MAGNER, NELSON WENDELL**, Care, R. W. Hebard & Co., Inc., San Salvador, Central America. (Age 28. Born Ft. Wayne, Ind.) Aug. 1916 to Aug. 1920 with 3d Engrs., U. S. Army, Canal Zone, on military roads. *TT 2: SP 2.* Aug. 1920 to April 1921 Recorder and Levelman, Fortification Div., Panama Canal. *TT 0.6: SP 0.6.* April to Sept. 1921 Levelman on highway location, Sept. 1921 to June 1922 Res. Engr., and June 1922 to May 1926 Supt. of Constr., with R. W. Hebard & Co., Inc., Panama. *TT 5.1: SP 1.2: P 3.9: RC 3.9.* May to Aug. 1926 Asst. Engr. and Aug. 1926 to date Chf. of Party on highway location, R. W. Hebard & Co., Inc., and Rene Keilhauer, San Salvador. *TT 0.7: P 0.2: RC 0.5: D 0.5.* *TT 8.4: SP 4: P 4.4: RC 4.4.* Refers to M. E. Gilmore, T. Guardia, R. C. Hardman R. W. Hebard, H. Ten Hagen, R. K. West, E. W. Wilson.

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(12) MARTIN, ALBERT WATSON, Jr., Chi Psi Lodge, Seattle, Wash. (Age 22. Born Helena, Mont.) 1926 B. S. in Civ. Engr. of Wash. TT 2: SP 2. Refers to W. F. Allison, I. L. Collier, C. W. Harris, C. C. More.

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(5) MAURICE, HENRY ADDINGTON, Jr., 1102 Perry St., Richmond, Va. (Age 23. Born Richmond, Va.) 1925 B. S. in C. E., and 1926 C. E., Va. Pol. Inst. TT 2: SP 2. June 1926 to date Draftsman, Bridge Dept., Virginia State Highway Dept. TT 0.6: SP 0.6. TT 2.6: SP 2.6. Refers to R. B. H. Begg, A. H. Bell, T. Ellett, W. R. Glidden, B. P. Harrison, H. G. Shirley.

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(1) MEYER, HELGE FUGL, 6 Kiukiang Rd., Shanghai, China. (Age 32. Born Copenhagen, Denmark.) 1914 B. Sc. of Philosophy, Univ. of Copenhagen. 1918 B. S. in C. E., Royal Tech. Coll., Copenhagen. TT 2: SP 2. Jan. to June 1919 Asst. Engr., Govt. Rys. of Denmark. TT 0.4: P 0.4. Aug. 1919 to date Eng. Asst., until Feb. 1920 in Concrete Dept., Andersen, Meyer & Co., Shanghai and since then in Constr. Dept., Whangpoo Conservancy Board, Shanghai. TT 7.5: P 7.5: RC 2.1: D 5. TT 9.9: SP 2: P 7.9: RC 2.1: D 5. Refers to H. Berents, J. A. Ely, L. F. Patstone, E. C. Stocker, A. V. H. von Heidenstam.

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(1) MONTGOMERY, ARTHUR LEIGH, 100 West Seventy-Second St., New York City. (Age 22. Born New York City.) March 1924 to May 1925 Chainman, with Hillsboro County Eng. Dept. and (2 months) McElroy Eng. Co., Tampa, Fla. TT 1.2: SP 1.2. June to Aug. 1925 Chainman with Butler, Barnett & Taylor, West Palm Beach, Fla., did mostly transit work, highway location and subdivision work. TT 0.2: SP 0.2. Sept. 1925 Chf. of Party, on lot surveys and subdivision work, with C. F. Blood Eng. Co., Morsemere, N. J. TT 0.1: SP 0.1. Nov. 1925 to Dec. 1926 with Ulen & Co., Barranquilla, Colombia, about 5 months as Asst. Engr., then Res. Engr. in responsible charge of location of railroads, jetty construction, surveys and general construction. TT 1.1: SP 0.4: P 0.7: RC 0.6. Jan. 1927 to date Engr., W. F. Kenny Co., on construction of substation for New York Edison Co. TT 0.1: P 0.1: RC 0.1. TT 2.7: SP 2: P 0.7: RC 0.7. Refers to T. A. Forbes, L. M. Gray, J. D. Moore, G. W. Sackett, J. Stewart.

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(6) MOORE, MORRISON BERT, Jr., 709 Laughlin Ave., Woodlawn, Pa. (Age 22. Born McKeesport, Pa.) 1926 B. S. in C. E., Lafayette Coll. TT 2: SP 2. Summer 1923 Chainman, Woodlawn (Pa.) Land Co. Summer 1924 Chainman, Borough of Woodlawn. Summer 1925 Tracer, Treadwell Constr. Co., Midland, Pa. June 1926 to date Draftsman (over 2 months) and in Valuation Dept., Morris Knowles, Inc., Pittsburgh, Pa. TT 0.6: SP 0.6. TT 2.6: SP 2.6. Refers to F. O. Dufour, F. C. Foote, N. B. Jacobs, M. Knowles, W. S. Lohr, M. G. Mansfield, E. S. Taub.

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(1) MORRILL, ALBERT HARRISON, 323 Riverside Drive, New York City. (Age 36. Born Denver, Colo.) 1913 M. E., Columbia School of Mines. TT 2: SP 2. June 1913 to Feb. 1917 with Central Chile Copper Co., Ltd., Panulcillo, Chile, until Dec. 1914 as Asst. Engr. on surveys, calculations, plotting, plan, projections, cross-sections, designing, etc.; 1915 Chf. Engr. directing underground development work, including diamond drill work; kept mining costs, etc., and after Jan. 1916 Supt. of Mines in complete charge of all mining operations, mine examination work. TT 3.7: P 3.7: RC 3.7: D 0.9. Feb. 1917 to Aug. 1918 with Andes Exploration Co. of Maine, Arequipa, until Aug. 1917 as Chf. Engr. at Cerro Verde Mico, on exploration, mountain road and mine building construction, triangulation, geological mapping, plotting, surveys, design and calculation of head frame, etc.; organized engineering force and installed office system; Aug. 1917 to April 1918 Supt. of Tintaya Property, exploration driving 11 tunnels, churn drilling, mountain road construction, mine buildings, in complete charge of organizing new mining camp; after May 1918 on mine examination work, surveying, mapping, sampling, assay maps, geological work and reports. TT 1.5: P 1.5: RC 1.5: D 0.3. Sept. to Dec. 1918 with Heavy Artillery, U. S. Army. Feb. 1919 to April 1921 Secy. and Treas., Kromter Leather Co., Newark, N. J., sale and accounting work. May 1921 to April 1924 member of firm, Morrill & Morrill, New York City, reports and examinations. TT 2.9: P 2.9: RC 2.9. Jan. 1924 to date with Port of New York Authority, until March 1926 as Chf. of Party on triangulation and topographical surveys, map making, marine traffic study, Arthur Kill and Hudson River Bridges; since March 1926 Asst. Res. Engr., Outerbridge Crossing, in charge approach, Perth Amboy, surveys and map making for Bayonne-Port Richmond Bridge. TT 2.9: P 2.9: RC 2.9. TT 13: SP 2: P 11: RC 11: D 1.2. Refers to O. H. Ammann, W. J. Boucher, E. Church, R. Hoppen, Jr., R. A. Leshner, W. G. Moler.

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(11) **MORRISON, ALLAN JAMES**, 990 Elden Ave., Los Angeles, Cal. (Age 25. Born Bangor, Me.) 1926 B. S. in Civ. Eng., Cal. Inst. Tech. TT 2: SP 2. July to Sept. 1923 Draftsman and Blueprinter, Imperial Irrigation Dist., California. TT 0.2: SP 0.2. Sept. 1923 to Sept. 1924 Draftsman, Los Angeles County Surveyor's Office, computed, plotted and traced county roads, etc. TT 1: SP 1. 1924-1925 (week-ends) private work, subdividing land in Los Angeles County. June 1926 to date Computer, Shell Co. of California, Los Angeles office, in charge of computing field surveys, including triangulation and traversing. TT 0.5: SP 0.5. TT 3.7: SP 3.7. Refers to A. Jones, R. R. Martel, W. W. Michael, S. L. Rothery, F. Thomas, J. A. Trudeau.

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(1) **NOBLE, CHARLES MacINTOSH**, Care, Port Authority, 75 West St., New York City. (Age 30. Born Bushnell, Fla.) Took course in Civ. Eng., International Correspondence Schools. Feb. 1914 to Sept. 1916 Eng. Asst. with A. F. Harley, Cons. Engr., Ft. Myers, Fla., being Field and Office Asst. as Rodman, etc.; instrument work on highway location and construction, city streets, sewers, surveys and office computations. TT 2.6: SP 2.6. Sept. 1916-Jan. 1917 Field Asst., U. S. Forest Service, in Alabama and Western North Carolina, surveying, mapping large timber tracts and estimating timber. TT 0.4: SP 0.4. April 1917 to March 1919 with U. S. Naval Reserve Force as Subchaser, English Channel and 2 months on sewer construction in Bordeaux, France. TT 0.2: P 0.2. March to Nov. 1919 Regulator, Merrill Stevens Shipbuilding Corporation, Jacksonville, Fla., in charge on erecting and bolting structural steel ships. TT 0.7: P 0.7. Nov. 1919 to Oct. 1920 Draftsman and Instrumentman, U. S. Engr. Office, Mayport, Fla., drafting, mapping, taking and plotting river soundings, river and ocean surveys, triangulation and bench levels, dredging estimates, rock jetty construction, etc. TT 0.9: P 0.9. Oct. 1920 to April 1921 Senior Draftsman and Acting Res. Engr., Alabama Highway Dept., design, construction plans, estimates, location and construction. TT 0.5: P 0.5: RC 0.5: D 0.3. April 1921 to July 1923 Location Engr. and Res. Engr., Kentucky Highway Dept., location, design, plans, in charge of heavy mountain construction, including steel truss and reinforced concrete bridges, retaining walls, etc. TT 2.3: P 2.3: RC 2.3: D 0.3. July 1923 to Oct. 1925 Res. Highway Engr., New Jersey Highway Dept., location, design, plans, estimates, reports, specifications concrete highways, including culverts, sewers, retaining walls, etc., location scenic highway, railroad grade separation studies and plans. TT 2.3: P 2.3: RC 2.3: D 2.3. Oct. 1925 to date Designer, Port of New York Authority, development, layout, design and estimates of approaches and plazas for large scale bridge projects, construction plans, estimates, specifications; design of pavement slab, storm sewer, retaining wall, etc. TT 1.3: P 1.3: RC 1.3: D 1.3. TT 11.2: SP 3: P 3.2: RC 6.4: D 4.2. Refers to O. H. Ammann, L. E. Andrews, J. M. Braxton, H. Cook, A. Dana, R. A. Leshner, R. A. Meeker.

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(13) **NOBMAN, CLARENCE JOHN**, 3235 Bayo Vista Ave., Alameda, Cal. (Age 30. Born Alameda, Cal.) 1918 B. S. in C. E., Univ. of Cal. TT 2: SP 2. May to Dec. 1918 2d Lieut., Engrs., U. S. Army, being Asst. Adjt. of Engr. Troops, Ft. Myer, Va. TT 0.7: P 0.7: RC 0.7. 1919 Engr., Bluefields Fruit & Steamship Co. of New Orleans, La., in charge of preliminary survey for highway (about 85 miles) in eastern Nicaragua, Central America. TT 1: P 1: RC 1. Jan. 1920 to May 1921 Instructor in Civ. Eng., Univ. of California. TT 1.4: P 1.4. May to July 1921 Eng. Designer with Erie L. Cope, San Francisco, Cal., designing steel bascule bridge. TT 0.2: P 0.2. July 1921 to Nov. 1922 Asst. Engr. with County Surveyor, Alameda County, Oakland, Cal., designing and supervising construction of reinforced concrete highway bridges, checking design of steel bascule bridge. TT 1.3: P 1.3: RC 1: D 1. Nov. 1922 to date Structural Designer, Shell Co. of California, San Francisco, designing reinforced concrete and steel structures for oil refineries. TT 4.2: P 4.2: RC 3: D 3. TT 10.8: SP 2: P 3.8: RC 5.7: D 4. Refers to F. E. Baxter, Jr., C. Derleth, Jr., F. S. Foote, B. Jameyson, G. A. Posey, I. C. Steele.

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(7) **NORLING, SVEN ALBERT**, P. O. Box 392, Excelsior, Minn. (Age 32. Born Soderhamn, Sweden.) 1917 B. S., and 1919 M. S., Agri. Coll., Uppsala, Sweden. 1924 Ph. D., Univ. of Wis. TT 2: SP 2. April to Sept. 1920 with Swedish Royal Water Power Comm., Stockholm, Sweden, surveying, in charge of topographical surveys of low lands adjacent to Lake Vanera, Sweden. TT 0.4: P 0.4: RC 0.4. April 1922 to date on public drainage works (\$200 000), including charge of judicial ditches, design and construction, Minneapolis, Minn. (April 1922 to Sept. 1926) county drainage districts, Hennepin County, Minn. (since Dec. 1923) and of design and supervision of construction of public drainage improvement; Meeker County (since Dec. 1925), Engr. on design of Mille Lacs public drainage system No. 13, Milaca, Minn. (since Jan. 1927); also on private drainage works (\$100 000), includ-

ing design and recommendation for complete drainage of low and overflowed land (2 080 acres) in Aitkin County, Minn., for Geo. S. Carson, Iowa City, Iowa (since Oct. 1924); design and supervision of reclamation of Kansota Land Co.'s tract (400 acres) in Freeborn County, Minn., for Kansota Farms Corporation, Topeka, Kans. (April to Dec. 1926), Engr. on reclamation of 2 500 acres (under construction) for McMillan Land Co., South Hollandale, Minn., and several smaller undertakings. 1926 Engr. on street and municipal improvements, Village of Excelsior, and Watertown, Minn. Since Aug. 1926 Consultant for states bordering Great Lakes in legal controversy with Chicago San. Dist.; Oct. to Aug. 1923 on surveys as to effect of backwater in soil from raising the damcrest at Martintown Dam on Pocatonica River, Wis. TT 4.9: P 4.9: RC 4.9: D 4.9. TT 7.8: SP 2: P 5.3: RC 5.3: D 5.3. Refers to A. P. Andersen, D. W. Mead, A. F. Meyer, J. T. Stewart, C. R. Thomas, C. N. Ward, E. V. Willard, C. H. Young.

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(6) OSBORNE, ELWOOD NOYES, 25 Maplewood Ave., Crafton Station, Pittsburg, Pa. (Age 23. Born Fairfield, Me.) 1925 B. S., Univ. of Me. TT 2: SP 2. June to Nov. 1925 Instrumentman, Central Maine Power Co., map making, surveys, construction power lines, design and drafting. TT 0.4: SP 0.3: P 0.1. Nov. 1925 to date Draftsman, detail, design and inspection with Morris Knowles, Inc. TT 1.3: SP 0.9: P 0.4: RC 0.2: D 0.2. TT 3.7: SP 3.2: P 0.5: RC 0.2: D 0.2. Refers to E. H. Aldrich, H. S. Boardman, M. Knowles, E. S. Taub.

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(7) POWELL, JEWELL WALTON, 79 East Pike St., Pontiac, Mich. (Age 21. Born Bandana, Ky.) June 1923 to date with City of Pontiac, Mich., until Nov. 1926 as Rodman, Instrumentman, Inspector and Draftsman on sidewalks, pavements, sewers, etc., then Inspector on trunk-sewer construction. TT 3.6: SP 3.6. Refers to W. L. Arnold, W. R. Cruise, G. D. Kennedy, J. W. Kennedy, J. R. Pollock.

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(12) ROGERS, HARRY STANLEY, 210 North Eleventh St., Corvallis, Ore. (Age 36. Born Detroit, Mich.) 1914 B. S. in C. E., and 1926 C. E., Univ. of Wyo. TT 2: SP 2. May to Oct. 1910 Instrumentman and Computer, Arnold Co., Valler, Mont. TT 0.3: SP 0.3. May to Sept. 1911 Draftsman and Surveyman with Buckbrough & Murchie, Engrs. and Archts., Birmingham, Mich. June to Oct. 1912 Asst. to City Engr., Laramie, Wyo. July to Oct. 1913 Instrumentman, Union Pacific R. R. July to Oct. 1914 with M. E. Cooley, Ann Arbor, Mich., as Estimator and Surveyman, Pere Marquette R. R., valuation. TT 0.2: SP 0.2. Sept. 1914 to June 1916 Instructor in Civ. Eng., Univ. of Iowa (9 months) and Univ. of Wyoming (9 months). TT 1.5: P 1.5. June to Sept. 1916 Party Chf., U. S. Reclamation Service, Shoshone Project, Powell, Wyo. TT 0.2: P 0.2: RC 0.2. Sept. 1916 to June 1918 Instructor in Civ. Eng., Univ. of Washington. TT 1.5: P 1.5. June to Sept. 1917 with W. J. Roberts, Tacoma, Wash., as Designing Engr. on sewerage system, Camp Lewis, Wash. TT 0.2: P 0.2: RC 0.2: D 0.2. June to Sept. 1918 Designing Engr. with Q. M. Dept., U. S. Army, on base hospital heating plant, Camp Lewis, Wash. TT 0.2: P 0.2: RC 0.2: D 0.2. Sept. 1918 to July 1919 Asst. Prof. of Civ. Eng., Lafayette Coll. TT 0.7: P 0.7: RC 0.7. Aug. 1919 to Aug. 1920 Designing Engr. and Estimator, Truscon Steel Co., Youngstown, Ohio. TT 1: P 1: RC 1: D 1. Sept. 1920 to date Prof. of Hydraulics and Irrigation Eng., Oregon Agricultural Coll. Summers 1921-1925 in private practice as Cons. Engr., on design, selection and installation of equipment for Hydr. Laboratory, Oregon Agricultural Coll. (1921), surveys, design and report on storage reservoir for City of Corvallis, Ore. (1922), report surveys, design and supervision of construction of reservoir and extension to water-supply system for City of Cottage Grove, Ore. (1923 and 1924), report of efficiency tests on turbines in municipal power plant for City of Eugene, Ore., and general preliminary report on water supply reconstruction for City of Medford, Ore. (1925). TT 6.2: P 6.2: RC 6.2: D 1.5. TT 14.4: SP 2.6: P 11.8: RC 8.7: D 3. Refers to L. E. Brigham, J. C. Fitterer, A. H. Fuller, C. B. McCullough, C. C. More, N. H. Sturdy.

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(11) SALSBUURY, MARKHAM ELMER, 1503 Bank St., South Pasadena, Cal. (Age 23. Born Bay City, Mich.) 1925 B. S. in C. E., Cal. Inst. Tech. TT 2: SP 2. Summers 1923 and 1924 Instrumentman with A. B. Cook, Civ. Engr., Santa Barbara, Cal. June 1925 to June 1926 Draftsman, and July 1926 to date Civ. Engr., with Los Angeles County Surveyor, Storm Drain Dept. TT 1.6: SP 1: P 0.6. TT 3.6: SP 3: P 0.6. Refers to F. Bates, N. Bostwick, F. F. Friend, H. C. Ives, A. Jones, F. Thomas, A. S. Zinn.

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(7) SCHLEMMER, OREN HENRY, 1219 Traver St., Ann Arbor, Mich. (Age 26. Born Ann Arbor, Mich.) 1925 B. S. C. E., Univ. of Mich. TT 2: SP 2. June 1925 to date Instrumentman, Chf. of Party, Res. Engr. and Field Engr. with Hoad, Decker, Shoecraft &

Drury, Ann Arbor, Mich. *TT 1.6: SP 0.7: P 0.9: RC 0.3. TT 3.6: SP 2.7: P 0.9: RC 0.3.* Refers to A. J. Decker, W. R. Drury, W. C. Hoad, R. L. McNames, H. E. Riggs, E. C. Shoecraft.

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(1) **SCHMEDES, SIGURD**, 430 West 119th St., New York City. (Age 27. Born Copenhagen, Denmark.) Jan. 1922 to Jan. 1924 Draftsman with Christiani & Neilsen, Copenhagen, Denmark. *TT 2: SP 2.* April to May 1926 Tracer, H. G. Balcom Co., Inc., New York City. *TT 0.1: SP 0.1.* May 1926 to date Draftsman, Gunvald Aus Co., New York City, some detailing, etc. *TT 0.7: SP 0.7. TT 2.8: SP 2.8.* Refers to K. Berle, D. C. Coyle, S. F. Holtzman, A. S. Schoyen, S. Shernow, A. C. Weiser.

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(1) **SCHOEN, HARRY**, 30 Olive Pl., Forest Hills Gardens, N. Y. (Age 22. Born New York City.) 1927 C. E., Cornell Univ. Summers 1922 and 1925 with Eugene Schoen, Archt., New York City, tracing, plot layouts, office work, overseer on construction, etc. Summers 1923, 1924 and 1926 with Leddy & Moore, Inc., Bldrs., New York City, as Supt.'s Asst., Plan Boy, Checker in field, and office work, and (1926) Asst. Supt. on construction, being Material Clerk, Labor Foreman, Timekeeper and Paymaster. *TT 2: SP 2.* Refers to F. A. Barnes, J. E. Perry, R. Y. Thatcher, C. L. Walker.

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(5) **SCOTT, ALFRED BEVERLY**, 2233 North Calvert St., Baltimore, Md. (Age 26. Born Baltimore, Md.) 1926 B. S. C. E., W. Va. Univ. *TT 2: SP 2.* Jan. 1919 to April 1921 Chairman, Rodman and Leveler, Baltimore & Ohio R. R. *TT 2.3: SP 2.3.* May 1921 to June 1922 Officer Engr., Monogahela Valley Eng. Co., Morgantown, W. Va., in charge of office work on surveying, railroad and mining engineering, preparing maps, designing tipples, etc. *TT 1.2: SP 0.4: P 0.8: RC 0.8: D 0.3.* July to Sept. 1922 Draftsman, West Virginia State Road Comm., plans and profiles for road construction. *TT 0.3: SP 0.3.* Oct. 1922 to June 1926 Instructor in drawing and descriptive geometry, Coll. of Eng., West Virginia Univ. July 1924 to Sept. 1925 (part of time) Bldg. Inspector, City of Morgantown, W. Va., in charge of inspecting buildings during construction, checking designs, etc. *TT 3.8: SP 3: P 0.8: RC 0.8.* July to Sept. 1926 Draftsman, Hoffman-Henon Co., Archts. and Engrs., Philadelphia, Pa., on building plans. *TT 0.3: SP 0.3.* Oct. 1926 to date Designer, Bethlehem Steel Co., Sparrows Point (Md.) Plant, on mill and building foundations, reinforced concrete and structural steel. *TT 0.3: P 0.3: D 0.3. TT 10.2: SP 8.3: P 1.9: RC 1.6: D 0.6.* Refers to G. H. Bayles, L. V. Carpenter, R. P. Davis, W. S. Downs, J. V. Funderburk, R. Reimann,

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(9) **SHERMAN, CHRISTOPHER ELIAS**, Ohio State University, Columbus, Ohio. (Age 57. Born Columbus, Ohio.) 1894 C. E., Ohio State Univ. *TT 2: SP 2.* Sept. 1887 to Sept. 1888 in County Surveyor's office, Columbus, as Chairman, Rodman, Levelman, Compassman and Draftsman. *TT 1: SP 1.* 1889 to 1890 Draftsman, Levelman and Transitman, Chattanooga (Tenn.) Land, Coal, Iron & Ry. Co. *TT 1: SP 1.* July 1891 to Sept. 1892 Topographer, Santa Fe, Prescott & Phoenix Ry. (5 months), Chf. Draftsman, Ohio Geological Survey (3 months) and surveying at Columbus (3 months). *TT 1.1: SP 1.1.* 1894 to 1896 Chf. Draftsman, U. S. Survey for 3 proposed barge canal routes across Ohio. *TT 1.2: SP 1.2.* Sept. 1896 to Sept. 1897 Asst., Sept. 1897 to Sept. 1901 Asst. Prof., Sept. 1901 to Sept. 1902 Associate Prof. and Sept. 1902 to date Prof. of, Civ. Eng., Ohio State Univ.; since May 1902 also Asst. to various Governors of Ohio in charge of State's interests in cooperation with U. S. Geological Survey on topography and stream-flow. Some summer vacations on consulting and other civil engineering work. *TT 30.5: SP 5: P 25.5: RC 25.5. TT 36.8: SP 11.3: P 25.5: RC 25.5.* Refers to J. W. Alvord, C. H. Birdseye, E. G. Bradbury, H. D. Bruning, P. Burgess, W. H. Dittoe, F. H. Eno, G. B. Gascoigne, J. H. Gregory, N. C. Grover, J. C. Hoyt, F. W. Jennings, L. Lee, C. T. Morris, C. W. Ozias, J. C. Prior, C. A. Raymond, G. F. Schlesinger, J. R. Shank, R. C. Sloane, R. N. Wald.

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(6) **SHORT, W IRWIN**, 1415 Elm St., Wilkinsburg, Pa. (Age 22. Born Crafton Heights, Pa.) 1926 B. S. Mo. School of Mines. *TT 2: SP 2.* Summers 1922-1925 Rodman, Transitman and Draftsman, and May 1926 to date Engr. with F. G. Ross, on surveying, including design, calculating and drafting lot plans, also field work on lot plans, such as sewers, streets, underground wiring, etc. *TT 0.7: P 0.7: RC 0.7: D 0.7. TT 2.7: SP 2: P 0.7: RC 0.7: D 0.7.* Refers to J. B. Butler, E. G. Harris, T. G. MacCarthy, C. V. Mann.

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(4) **SMITH, DOUGLASS LEE**, 1003 Coal Exchange Bldg., Wilkes-Barre, Pa. (Age 32. Born Punxsatawney, Pa.) 1914 to 1917 student, Lafayette Coll. *TT 1: SP 1.* Summers 1910 to 1917 and 1919 to date with Smith & Welles, Cons. Engrs., Wilkes-Barre, Pa., as

Rodman, Noteman, Transitman, Inspector and Engr. on reinforced concrete bridge construction, reinforced concrete, brick, asphalt block, sheet and lake asphalt road construction, storm and sanitary sewer work and general municipal engineering, mine examinations and valuation reports; April to Nov. 1925 Engr. on design and in charge of construction of sheet asphalt road (2¼ miles) for Wyoming Valley Taxpayers Assoc.; Jan. to July 1926 Borough Engr. of Courtdale Borough; design and construction of roads and sewers and (July to Nov. 1926) Engr. in charge of construction of eleven streets (lake asphalt) and storm sewer for Forty-Fort Borough; at present Associate of H. S. Smith (successor to Smith & Welles). *TT 9: SP 7: P 2: RC 2: D 2. TT 10: SP 8: P 2: RC 2: D 2.* Refers to C. R. French, R. V. Norris, J. Shlessinger, H. S. Smith, G. B. Walker, F. C. Wintermute.

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(1) **SONDERMAN, GERHARD**, 104 West Eighty-Sixth St., New York City. (Age 21. Born Elbing, Germany.) 1925 B. S. in Civ. Eng., Clarkson Coll. Tech. *TT 2: SP 2.* June to Sept. 1924 Jun. Asst. Engr., Board of Transportation, New York, field and office work on subway construction, being Rodman, Instrumentman, etc. July 1925 to date Power Plant Designer, Gen. Eng. & Management Corporation, 6 months acting as Structural Draftsman, and 1 year directing drafting and computations for concrete and architectural design. *TT 1.5: SP 0.5: P 1. TT 3.5: SP 2.5: P 1.* Refers to J. P. Brooks, P. A. Kelly, C. A. McCollough, C. A. Pohl, R. H. Stearns.

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(2) **SPAULDING, PAUL PICKERING**, 37 Lenox St., Worcester, Mass. (Age 33. Born Ashland, Mass.) 1918 B. S. in Civ. Eng., Tufts Coll. *TT 2: SP 2.* April 1917 to May 1919 with U. S. Navy, as Asst. Eng. Officer, U. S. S. *Gwin* and Constr. Officer, U. S. S. *Harding*. June 1919 to July 1925 with Edward F. Miner Bldg. Co., Worcester, Mass., estimating, quantity surveying and incidental design. *TT 6.1: SP 4.6: P 1.5: RC 1.5.* July 1925 to date with City of Worcester, as Asst. Supt. of inspection and construction, Bldgs. Dept., Deputy Chf. Bldg. Inspector, responsible for design of buildings. Since Oct. 1919 (evenings) also Instructor Northeastern Univ. School of Eng., Y. M. C. A. Evening School, Worcester. *TT 1.6: P 1.6: RC 1.6: D 1.6. TT 9.7: SP 6.6: P 3.1: RC 3.1: D 1.6.* Refers to A. W. French, W. Hedlund, A. J. Knight, S. Lund, E. F. Miner, S. H. Pitcher, J. A. Tosi, L. W. West.

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(14) **SPENCER, WARREN RUSSELL**, 318 West Lafayette St., Fayetteville, Ark. (Age 37. Born Russellville, Ind.) Registered Prof. Engr., State of Arkansas. 1912 A. B., Ind. Univ. 1916 B. S. in Civ. Eng., and 1920 C. E., Rose Pol. Inst. 1926 M. S., Iowa State Coll. *TT 2: SP 2.* June 1916 to June 1919 Instructor in Civ. Eng., Rose Polytechnic Inst.; also (spare time) on mine surveying and mapping; summer 1916 Draftsman, Ft. Pitt Bridge Co. of Cannonsburg, Pa.; summer 1917 Office Engr., Illinois Highway Comm. *TT 2.7: SP 0.6: P 2.1: RC 1.5.* Sept. 1919 to June 1921 Asst. Prof., and Sept. 1921 to date Associate Prof. of Civ. Eng., Univ. of Arkansas, in charge of Materials Testing Laboratory, testing road materials for Arkansas State Highway Dept. and commercial testing of structural, road and bituminous materials, etc.; Member of Eng. Experiment Station Staff and in charge of two projects, prepared plans for layout of new materials-testing and new hydraulic laboratories (under construction); summer 1920 Res. Engr., Indiana Highway Comm., on construction of 10-mile concrete road; summer 1924 Fieldman, Portland Cement Association, St. Louis office; summer 1925 and 1926 with Iowa State Eng. Coll. on highway research. *TT 7.5: P 7.5: RC 7.5: D 2. TT 12.2: SP 2.6: P 9.6: RC 9: D 2.* Refers to T. R. Agg, R. A. Caughey, W. L. Foster, A. Marston, H. A. Thomas.

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(2) **STONE, WALTER MAXWELL**, 127 Summer St., Waltham, Mass. (Age 44. Born Waltham, Mass.) 1904 S. B., Lawrence Sci. School. *TT 2: SP 2.* July 1904 to June 1905 Special Shop Apprentice, Northern Pacific R. R., Tacoma, Wash. *TT 1: SP 1.* July 1905 to Oct. 1907 and June 1909 to Dec. 1911 Draftsman, J. R. Worcester & Co., Boston, Mass., drafting and designing on subways, elevated railroads, buildings and bridges. *TT 4.7: SP 4.7.* Oct. 1907 to May 1909 travel and study in Europe. Feb. 1912 to April 1917 Draftsman, until June 1913 with Board of State Harbor Comms. of California, San Francisco on design of piers, bulkheads, and pier sheds, then with Boston & Maine R. R., on design, of bridges and buildings, and after May 1916 with F. T. Ley & Co., Inc., Springfield, Mass., on design of industrial buildings. *TT 5.2: SP 5.2.* July 1917 to Oct. 1921 Designing Engr., Kearns Constr. Co., Boston, design and supervision of industrial buildings. *TT 4.7: P 4.7: RC 1.5: D 2.2.* Oct. 1921 to May 1922 New Business Solicitor, J. R. Worcester & Co., Boston. *TT 0.7: P 0.7: RC 0.7.* May 1922 to May 1924 Engr., being member of firm, Stone, Bigelow & Tirrell, Boston. *TT 2: P 2: D 2.* May 1924 to date

Engr., Structural Div., Stone & Webster, Inc., Boston, in charge of design. *TT 2.5: P 2.5: D 2.5. TT 2.3: SP 1.3: P 1.0: RC 2.3: D 6.7.* Refers to G. H. Brazer, L. S. Cowles, C. R. Gow, A. W. Nordwell, E. E. Pettee, H. B. Pratt, G. Small, L. J. Towne, J. R. Worcester.

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(4) **TARK, MARCUS BOGISLAF**, 5125 Sydenham St., Philadelphia, Pa. (Age 50. Born Hohenau, Switzerland.) Prior to 1911 Machinist, Foreman Machinist and Draftsman for various employers, 1911 Master Mechanic, Enterprise Manufacturing Co., Cornwells, Pa. 1912 Draftsman, Armstrong Cork Co., Camden, N. J. 1913 to 1914 Draftsman in charge of plant design, Sanitation Corporation, Philadelphia, Pa. (now of New York City). *TT 1.3: P 1.3: RC 1: D 1.3.* 1915 to 1916 Draftsman, Harrison Bros., Philadelphia, on machinery layout. *TT 1: SP 1: D 1.* 1916 to date Engr. in charge of sewage-disposal work, Link-Belt Co., Philadelphia, Pa.; inventor of Tark Sewage Screen, developed Link-Belt Sludge Collector. *TT 10.8: P 10.8: RC 8: D 10.8. TT 13.1: SP 1: P 12.1: RC 9: D 13.1.* Refers to K. Allen, H. M. Beaumont, T. C. Hatton, C. F. Mebus, A. Potter, V. H. Reichelt, D. W. Townsend.

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(13) **THACKER, GERALD**, 387 Thirty-Fifth St., Oakland, Cal. (Age 23. Born Traverse City, Mich.) 1926 B. S. in Civ. Eng., Univ. of Cal. *TT 2: SP 2.* June 1923 to Jan. 1924 Chairman, Bel-Air Subdivision, with Wilkie Woodard, Los Angeles, Cal. *TT 0.5: SP 0.5.* May to Aug. 1925 Asst. in C. E. Testing Laboratory, Univ. of California. May 1926 to date Asst. or Jun. Engr., Bridge Dept., Alameda County, on design, inspection and drafting of bridges and culverts. *TT 0.7: SP 0.7. TT 3.2: SP 3.2.* Refers to R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, C. G. Hyde, B. Jameyson, G. A. Posey.

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(7) **ULLIAN, HYMAN BENJAMIN**, 2522 First National Bank Bldg., Detroit, Mich. (Age 31. Born Lowell, Mass.) 1916 B. S., Mass. Inst. Tech. *TT 2: SP 2.* June to Dec. 1916 Transitman and Inspector, Massachusetts Highway Comm. *TT 0.5: SP 0.5.* Dec. 1916 to May 1917 Asst. in designing sub-structure, Springfield Bridge, with Fay, Spofford & Thorndike, Boston, Mass. *TT 0.5: P 0.5.* June to Aug. 1917 in charge of planning layout of sewer system at Camp Custer, Battle Creek, Mich. *TT 0.2: P 0.2: RC 0.2.* Sept. to Nov. 1917 design layout, water, sewer and pavements of Langley Field, Va., for Albert Kahn, Archt., Detroit. *TT 0.2: P 0.2: RC 0.2.* Dec. 1917 to May 1918 in charge of layout of underground piping and structures for Boston Army Base, with Fay, Spofford & Thorndike. *TT 0.5: P 0.5: RC 0.5.* June 1918 to Feb. 1919 Inspector of construction of Harvard Radio School and Boston Fuel Base, with U. S. Navy, Boston Navy Yard. *TT 0.7: P 0.7.* March 1919 to date in charge of engineering work as member of firm, Goldman & Ullian, and National Survey Service at Detroit, Cleveland, Toledo, Akron, Pittsburgh, Columbus, and Orlando, Fla., surveying, design and supervision of municipal improvements in subdivisions, landscape and structural designs. *TT 7.7: P 7.7: RC 7.7. TT 12.5: SP 2.5: P 10: RC 8.7.* Refers to C. B. Breed, J. T. N. Hoyt, H. J. Hughes, S. C. Lewandorf, C. M. Spofford.

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(1) **VALDEZ, RAFAEL ENRIQUE**, Care, Obras Públicas, Santo Domingo, Dominican Republic. (Age 28. Born Santo Domingo, Dominican Republic.) 1923 C. E., Rens. Pol. Inst. *TT 2: SP 2.* Aug. 1923 to date with Dept. of Public Works, Santo Domingo, Dominican Republic, as follows: Aug. to Dec. 1923 Draftsman; Dec. 1923 to March 1924 Transitman; March 1924 to March 1925 Asst. Engr. on survey for and on construction of Sec. C, Santiago-Puerto Plata Highway; March 1925 to Sept. 1926 Engr. in charge of location and construction of 30 km. of highway between Sanchez and Matanzas; since Sept. 1926 Dist. Engr. in charge of Eastern and Southern Dist. of road construction and maintenance. *TT 3.5: SP 0.6: P 2.9: RC 1.9. TT 5.5: SP 2.6: P 2.9: RC 1.9.* Refers to J. M. Adams, J. W. Beardsley, J. H. Caton, 3d, L. W. Clark, L. E. Loxley, L. H. Walker.

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(1) **VANDEBEEK, HORACE ANDERSON**, 149 Doughty Ave., Somerville, N. J. (Age 36. Born Somerville, N. J.) 1911 C. E., and 1912 M. C. E., Cornell Univ. *TT 2: SP 2.* Sept. 1911 to June 1912 graduate student, and (spare time) surveying and teaching, Cornell University. *TT 0.8: SP 0.8.* June 1912 to Jan. 1913 Draftsman, American Bridge Co. *TT 0.6: SP 0.6.* Feb. 1913 to Feb. 1920 and Jan. to June 1921 Prof. of Structures, Dean of Civ. Eng., and June 1921 to Feb. 1922 Designer and Constr. Engr. for college buildings, Govt. Inst. of Technology, Shanghai, China. *TT 8.2: P 8.2: RC 7.5: D 0.7.* April to Nov. 1920 Concrete Designer, Concrete Steel Co., New York City. *TT 0.6: SP 0.2: P 0.4.* Feb. 1922 to June 1925 Principal, Wusih Tech. School (M. E. Church), Wusih, Kiangsu, China, under Board of Directors organized, designed and built buildings, also carried on work of training building superintendents and draftsman, managed school shops and Constr. Dept.;

June 1924 to July 1925 also Engr.-in-Chg., Wusih Conservancy Board, on waterways surveys, dredging and bridge design. *TT 3.3: P 3.3: RC 1.3: D 2.* Aug. 1925 to Oct. 1926 Detailer, Trenton, N. J., and Nov. 1926 to date Asst. Engr., Bldg. Dept., New York City, with American Bridge Co. *TT 1.6: SP 1: P 0.6.* *TT 17.1: SP 3.8: P 13.3: RC 8.8: D 2.7.* Refers to A. Q. Adamson, F. A. Barnes, J. H. Black, J. A. Ely, L. P. Gaston, H. H. Ling, F. C. Moore, H. W. Preston, E. C. Stocker, J. E. Wadsworth.

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(10) VEST, WILLIAM EDWARD, 806 West Trade St., Charlotte, N. C. (Age 60. Born Tobaccoville, N. C.) 1889 to 1899 Rodman, Instrumentman and Draftsman, Richmond, Danville & Southern Ry. *TT 10: SP 10.* 1899 to 1910 Asst. Engr., Southern Ry., on design and supervision of construction, Dept. of Operation. *TT 11: P 11: RC 11: D 11.* 1910 to date Supt., Charlotte (N. C.) Water-Works, general supervision of plant design and construction supply system, filtration plant and distribution system. *TT 16: P 16: RC 16: D 16.* *TT 37: SP 10: P 27: RC 27: D 27.* Refers to W. S. Fallis, A. B. Hsley, J. L. Ludlow, C. A. Mees, F. T. Miller, H. E. Miller, W. M. Platt, T. Saville, C. E. Waddell, G. C. White.

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(13) VETTER, CARL PETER PEDERSEN, 1043 Clayton St., San Francisco, Cal. (Age 34. Born Copenhagen, Denmark.) 1912 Candidatus Philosophiae, and 1918 Candidatus Polytechnics (B. S.), Univ. of Copenhagen. *TT 2: SP 2.* 1916 to 1917 Lieut., Royal Danish Artillery. *TT 1.5: SP 1: P 0.5: D 0.5.* 1917 to 1918 Asst. Engr. with Birch & Pedersen, Cons. Engrs., Copenhagen, on reinforced concrete street and sewer work, design and inspection. *TT 0.6: P 0.6: D 0.6.* 1918 to 1919 Concrete Engr., Andersen & Meyer & Co., New York and Shanghai, being Res. Engr. for North China, design and direction of work, reinforced concrete and steel buildings. *TT 1.5: P 1.5: RC 1.5: D 1.5.* 1919 to 1924 Executive Engr. and Chf. Asst. Engr., Chinese Govt. Civ. Service, Board of Conservancy Works of Kwangtung, Canton, China, in charge of all design and supervision of work, flood control, dams, levees, harbor and hydro-electric developments. *TT 5: P 5: RC 5: D 5.* 1924 to 1925 Cons. Engr., at Hong Kong on reinforced concrete structures. *TT 0.5: P 0.5: RC 0.5: D 0.5.* 1925 to date Designing Engr. and Chf. Draftsman, Great Western Power Co. of California, in charge of design and drafting, hydro-electric developments, substations, etc. *TT 1.8: P 1.8: RC 1.8: D 1.8.* *TT 12.9: SP 3: P 9.9: RC 8.8: D 9.9.* Refers to J. D. Galloway, J. M. Howells, L. R. Jorgensen, C. M. Mardel, A. V. H. Von Heldenstam.

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(9) WALKER, WILLIAM HIGHAM, 418 Court St., Portsmouth, Ohio. (Age 26. Born Castleton, England.) 1925 M. E., Lehigh Univ. *TT 2: SP 2.* Sept. 1925 to April 1926 Engr., Keystone State Constr. Co. of Philadelphia, Pa., on underpinning. *TT 0.7: P 0.7: RC 0.4.* May to July 1926 Engr., Murphy, Quigley Constr. Co. of Philadelphia, on construction. *TT 0.2: P 0.2: RC 0.2.* July 1926 to date Engr., Dravo Constr. Co. of Pittsburgh, Pa., on construction. *TT 0.4: P 0.4: RC 0.4.* *TT 3.3: SP 2: P 1.3: RC 1.1.* Refers to P. G. Brown, G. S. Frost, F. J. Lewis.

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(10) WALLACE, ALLAN LANHAM, Cullman, Ala. (Age 36. Born Decatur, Ala.) 1912 student, special course in Civ. Eng. and Design, Univ. of Alabama. *TT 0.3.* 1908-1910 Rodman and Inspector on street paving, City of Decatur, Ala., including sidewalks, storm and sanitary sewers, etc. *TT 3.* 1911 Rodman and Inspector, Morgan County, Ala., on waterbound macadam and concrete structures, etc. *TT 1.* 1914 to 1918 running land lines, design and supervision of dipping vats, watering troughs, silos, etc., in Midland County, Midland, Tex. *TT 4.* Jan. to May 1919 Instrumentman, highway work, Lauderdale County, Florence, Ala. *TT 0.4.* May 1919 to March 1920 Inspector, Transitman and Draftsman on street paving, Florence. *TT 0.8.* March 1920 to March 1921 Asst. Res. Engr., and March to Nov. 1921 Res. Engr., street paving, Albany, Ala., in charge of construction and assessments. *TT 1.5: RC 1.5.* Nov. 1921 to March 1922 contracted with City of Albany to make large map of city. *TT 0.3: RC 0.3: D 0.3.* March 1922 to Oct. 1924 with City of Anniston, Ala., until March 1923 as Res. Engr. on subdivision development, including water-works, storm and sanitary sewers, sidewalk, curb and gutter and asphalt paving (\$100 000), then Asst. City Engr. in charge of street paving (\$500 000). *TT 2.5: RC 2.5.* Oct. 1924 to date Res. Engr., State Highway Dept. of Alabama, until May 1926 on 23 miles of grading, drainage and one-course concrete paving slab, Calhoun County, then on 18 miles of grading, drainage, waterbound macadam pavement, Cullman County. *TT 2.4: RC 2.4.* *TT 16.2: RC 6.7: D 0.3.* Refers to R. P. Boyd, W. P. Butler, G. D. Douglass, F. A. Gerig, A. M. Lund, R. L. Totten.

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(8) **WALTHER, D J LOGSDON**, 1625 Central Ave., Wilmette, Ill. (Age 29. Born Corydon, Ky.) Student, Coll. of Eng., State Universities of Kansas (1917-1918), Illinois (1919) and Oklahoma (1920-1922). *TT 1: SP 1.* June to Sept. 1918 Chairman, and Jan. to Aug. 1919 Computer, Valuation Dept., Chicago, Burlington & Quincy Ry. *TT 0.7: SP 0.7.* Jan. to Sept. 1920 Asst. City Engr., Danville, Ill., setting grades and inspection. *TT 0.7: SP 0.7.* June to Sept. 1921 and May to Sept. 1922 Res. Engr., V. V. Long & Co., in sole charge of establishing grades, revising plans and supervising construction. *TT 0.5: P 0.5: RC 0.5.* Sept. to Oct. 1923 Inspector with Pearse, Greeley & Hanson, Chicago, Ill., on sewer construction. *TT 0.1: SP 0.1.* Oct. to Dec. 1923 calibrating Recorders, H. J. Hays Corporation. *TT 0.2: SP 0.2.* Dec. 1923 to April 1924 Asst. Designer for Consoer-Older & Quinlan, Cons. Engrs., on sewer and water design and instrument work. *TT 0.3: SP 0.3: D 0.2.* April 1924 to date Asst. Engr. with Windes & Marsh, Cons. Engrs., on design and supervision of construction, reports and appraisals. *TT 2.9: P 2.9: RC 0.8: D 2. TT 6.4: SP 3: P 3.4: RC 1.3: D 2.2.* Refers to J. L. Crane, Jr., J. F. Fucik, Jr., H. E. Hudson, G. C. D. Lenth, F. A. Windes.

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(15) **WARING, JOHN DAWSON, Jr.**, 1110 Park Ave., Corpus Christi, Tex. (Age 28. Born Dublin, Tex.) Sept. 1916 to March 1918 student, Rice Inst., Houston, Tex. *TT 0.3: SP 0.3.* April to Sept. 1919 Rodman and Instrumentman for a county surveyor and a county engineer. *TT 0.4: SP 0.4.* Sept. 1919 to Feb. 1925 with Transcontinental Oil Co., until Feb. 1920 as Instrumentman and Draftsman, Eng. Dept., on surveying and oil-well, pipe-line and tank-farm location, then Asst. to Geologist on geological surveys, examinations, reports, etc., and after Oct. 1921 Geologist, on geological reconnaissance and reports, etc. in South America, Mexico, Texas, Louisiana, New Mexico, Colorado, subsurface investigation, well correlations, chemical analysis. *TT 5.4: SP 2.1: P 3.3: RC 2.7.* Feb. 1925 to March 1926 City Engr., Comanche, Tex., in responsible charge of construction of earth dam for water supply, assisted in design of dam, filter plant and pipe line. *TT 1: P 1: RC 1.* March 1926 to date Res. Engr., Corpus Christi, Tex., in charge of construction of sewer system (\$300 000), screening plant and outfall sewer, in charge preliminary surveys for irrigation and water-supply project, Jno. B. Hawley, Cons. Engr. *TT 1: P 1: RC 1. TT 8.1: SP 2.8: P 5.3: RC 4.7.* Refers to S. W. Freese, L. B. Griffith, J. B. Hawley, C. J. Howard, L. Long, E. L. Myers, H. N. Roberts, Jr.

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(1) **WITELAW, WILLIAM GALLOWAY**, 68 Robinson St., West Englewood, N. J. (Age 28. Born Westraigs, Scotland.) Licensed Land Surveyor, State of New Jersey. 1920 received British Govt. Mine Surveyor Diploma, Coatbridge Min. & Tech. Coll. (Evening School). Jan. 1913 to Oct. 1915 Chairman, Rodman and Draftsman, United Collieries, Ltd., Glasgow, Scotland. *TT 2.8: SP 2.8.* Oct. 1915 to Dec. 1919 with British Forces. April 1919 to April 1921 Dist. Surveyor, United Collieries, Ltd., in charge of surveys, plans, drafting room and layout for group of mines. *TT 2: P 2: RC 2.* April 1921 to Aug. 1923 Surveyor on pole and tower transmission work, Public Service Elec. Co., Newark, N. J. *TT 2.3: SP 2.3.* Aug. 1923 to Feb. 1924 Chf. of Party, Henry Steers, Inc., New York City, in charge of layout of building lines, footings, pile driving, etc. *TT 0.5: P 0.5: RC 0.5.* April 1924 to date Engr., Draftsman, Teaneck (N. J.) Township, on street and sewer construction, estimating and designing. *TT 2.6: P 2.6: D 2.1. TT 10.2: SP 5.1: P 5.1: RC 2.5: D 2.1.* Refers to C. L. Bogert, M. Hendee, T. Human, Jr., J. F. Sanborn, R. W. Wells.

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(6) **WICKHAM, JOSEPH JOHN**, 731 South Negley Ave., Pittsburgh, Pa. (Age 25. Born Manchester, Conn.) 1925 B. S., Mass. Inst. Tech. *TT 2: SP 2.* June to Oct. 1923 and Sept. 1925 to March 1926 Draftsman on steel tanks and towers, Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa. *TT 0.6: P 0.6.* March 1926 to date with Morris Knowles, Inc., Pittsburgh, as Asst. Engr. on design and appraisal of filters, water companies and electric power companies. *TT 0.9: P 0.9. TT 3.5: SP 2 P 1.5.* Refers to J. A. Fulkman, I. D. Goodwin, F. Henderson, N. B. Jacobs, M. Knowles, M. G. Mansfield, E. S. Taub.

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(14) **WRIGHT, HARRY McDONALD**, 2105 West Sixteenth St., Little Rock, Ark. (Age 28. Born Little Rock, Ark.) 1917 to 1919 Student, Coll. of Civ. Eng., Univ. of Arkansas. *TT 0.6: SP 0.6.* Summers Rodman and Chairman. March to July 1920 Draftsman and Computer, with Martin & Wittenberg, Civ. Engrs., Little Rock, Ark., on Federal Aid highway projects. *TT 0.3: SP 0.3.* July 1920 to Sept. 1921 Asst. City Engr., Little Rock, in charge of paving and sewer construction and official street grades. *TT 1.1: P 1.1: RC 1.1.* Sept. 1921 to July 1925 Asst. Engr. with V. P. Knott, C. E., in charge of paving, sewers, drainage, subdivisions, surveys, plans and construction, including Prospect Terrace addition, paving

sewers, subdivision (cost \$60 000); Ringo and Scott Sts., paving (\$115 000), Pocket Cypress Drainage Dist. (\$75 000) sewer work, etc. (\$50 000). *TT 3.8: P 3.8: RC 3: D 0.8.* July 1925 to June 1926 Chf. Engr., Sarasota (Fla.) Eng. & Constr. Co., on design and layout of subdivisions, pavements, sewers, water-works, seawalls, etc. *TT 0.9: P 0.9: RC 0.4: D 0.5.* June 1926 to date Asst. Engr. with V. P. Knott, C. E., Acting as Res. Engr. in charge of construction of 5 miles of trunk sewers (diameter 10 to 27 in., cost \$125 000), Little Rock. *TT 0.5: P 0.5: RC 0.5.* *TT 7.2: SP 0.9: P 6.3: RC 5: D 1.3.* Refers to G. D. Douglass, N. B. Garver, P. B. Hill, V. P. Knott, J. H. Rice, E. E. Stansbery, E. U. Stevenson.

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(3) **YOUNG, LAWRENCE RICHARD**, 162 Mechanic St., Watertown, N. Y. (Age 29. Born South Colton, N. Y.) 1922 B. S. in C. E., Clarkson Coll. Tech. *TT 2: SP 2.* June 1917 to Sept. 1918 Rodman, Chainman, Instrumentman, Recorder, Inspector and Asst. to Engr. in charge of power-house construction on 25 000-h.p. hydro-electric project, June to Sept. of years 1919 and 1920 Instrumentman on transmission line and topographical surveys, Oct. 1920 to June 1921 (while student) making topographical maps and preliminary estimates for hydro-electric development, and Nov. 1921 to April 1922 (while student) Party Chf. on topographical survey, all for St. Lawrence Transmission Co. (now St. Lawrence Valley Power Corporation), Potsdam, N. Y. *TT 1.3: SP 1.3.* June to Oct. 1921 Jun. Asst. Engr., Grade 1, highway construction, New York State Dept. of Public Works. Sept. 1925 to May 1926 Designer with Carr & McFadden, Inc., West Palm Beach, Fla., on curvilinear computations, sub-division planning and estimating. *TT 0.8: P 0.8: D 0.8.* June 1922 to Sept. 1925 as Asst. Engr. on hydro-electric construction, Draftsman, Estimator and Party Chf. on topographical surveys and design of hydro-electric plants, and May 1926 to date Party Chf. on topographical surveys and mapping, estimating and design, with the Power Corporation of New York, Watertown, N. Y. *TT 4.3: SP 0.6: P 3.7: RC 1.8: D 1.7.* *TT 8.4: SP 3.9: P 4.5: RC 1.8: D 2.5.* Refers to W. B. Carr, W. P. Creager, R. F. Hall, G. C. George, W. T. Hopkins, L. E. Olson.

FOR TRANSFER

FROM THE GRADE OF ASSOCIATE MEMBER

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(4) **ANDREWS, GEORGE DOUGLAS**, Assoc. M., Drake Bldg., Easton, Pa. (Elected March 7, 1921.) (Age 37. Born Coatesville, Pa.) Nov. 1909–March 1916 with Pennsylvania Dept. of Health as follows: Nov. 1909 to June 1910 Rodman; June 1910 to June 1913 Draftsman on property and topographical maps and on plans for buildings, water-works, sewerage systems, sewage-treatment plants and roads for State Sanatoria at Mont Alto, Cresson and Hamburg; June 1913 to June 1915 Asst. Engr. on construction of buildings, roads, water-works, sewerage systems and sewage-treatment plants; June 1915 to March 1916 Asst. Engr., Sec. of Tests of water and Sewage-Treatment Plants on inspection and operation of water-filtration and sewage-treatment plants. *TT 6.4: SP 2.6: P 3.8.* April to Dec. 1916 Asst. to Res. Supt. of Constr., McClintic-Marshall Constr. Co., on fabricating bridge shop, installation of machinery, track layout at Pottstown, Pa. *TT 0.7: P 0.7: RC 0.7: D 0.7.* Jan. 1917 to Dec. 1923 (except Oct. 1917 to May 1919 2d Lieut., U. S. Army, Army School of Engrs., Camp San. Engr., Asst. Post Maintenance Officer, Air Service, D. M. A.) with Pennsylvania Dept. of Health from Jan. 1917 to Sept. 1918 and May 1919 to July 1920 as Asst. Engr., on inspection, operation, etc., of municipal water-works, sewerage systems, water filtration and sewage-treatment plants, investigations and treatment of industrial wastes, mosquito control, control of typhoid fever epidemics, etc.; after July 1920 Dist. Engr. in charge of such work in six counties. *TT 7: SP 0.7: D 6.3: RC 6.3: D 5.6.* Jan. 1924 to date Chf. Engr., Bureau of Water Works and Sewerage, Easton, Pa., in complete charge of organizing Bureau, studies and investigations incidental to design, and of construction of sewerage system, pumping stations and sewage-treatment works for the city, (total \$5 000 000). *TT 3.1: P 3.1: RC 3.1: D 3.1.* *TT 17.3: SP 3.3: P 14: RC 12.2: D 9.4.* Refers to C. A. Emerson, Jr., F. S. Friel, H. E. Moses, F. H. Snow, W. L. Stevenson, E. L. Waterman.

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(8) **BRIGGS, CHAUNCEY MILLAR**, Assoc. M., 316 Normal Parkway, Chicago, Ill. (Elected May 19, 1924.) (Age 43. Born Chicago, Ill.) 1917 C. E., Cornell Univ. *TT 2: SP 2.* July 1901 to Aug. 1907 (while student) with South Park Commrs., Chicago, Ill., laying conduit, making reinforced building blocks, Timekeeper on dredge, repairing road machinery, drafting, Engr. and Pilot on park passenger launches. Sept. 1907 to May 1909 Cost Clerk

on special apparatus, Estimating Dept., Western Elec. Co., Chicago, Ill. *TT 1.3: SP 1.3.* May to Aug. 1909 Rodman, Elgin, Joliet & Eastern Ry. Co. *TT 0.2: SP 0.2.* Aug. 1909 to April 1910 Rodman, New York Central R. R., made layout under crossing, etc. *TT 0.6: SP 0.6: D 0.1.* April 1910 to Sept. 1913 with Chicago & Western Indiana R. R., as Rodman, Levelman, Transitman, Instrumentman (Cement and Steel Tester and Inspector, in charge of laboratory), construction of bascule bridge, track elevation, South Chicago, and of clearing gravity yard, and track survey for electrification. *TT 3.3: P 3.3: RC 2.8: D 0.3.* Sept. 1913 to June 1917 Asst. on engineering work (while student) to Prof. C. L. Crandall and Carl C. Crandall, and (1916-1917) Editor-in-Chief of *Cornell Civil Engineer*. July 1917 to Jan. 1918 with Rochester (N. Y.) Ry. & Light Co., as Draftsman and Designer on hydro-electric station No. 5, central steam station and on coal gas plant, in charge of design and construction of latter plant, United Gas & Improvement. *TT 0.5: PO 5: RC 0.2: D 0.4.* March to Aug. 1918 and Dec. 1918 to July 1920 with Sinclair Refining Co., Chicago, as Draftsman, Designer in charge of refinery layout, hydraulic work, steam stations, sanitary systems, pumping stations, and (after Dec. 1918) Chf. Designer, Houston Refinery, East Chicago Refinery, Albany, N. Y., Coffeyville, Kans., Kansas City, Tremley Point, N. J. *TT 1.6: P 1.6: RC 1.6: D 1.6.* Aug. to Nov. 1918 Ensign, U. S. Navy, in charge of design of gas plant, and all low pressure process for Navy nitrate plant at Indian Head, Md. (not constructed). *TT 0.3: P 0.3: RC 0.3: D 0.3.* July 1920 to July 1921 Sales Engr. and Office Mgr., Maher Eng. Co., Chicago, design of fire protection layouts. *TT 1: P 1: RC 0.5: D 0.5.* July 1921 to date in private practice as Cons. Engr. on design and supervision of power and pumping plants, dredges, etc.; has had full charge of architecture, industrial layout, power-plant design and supervision on water-supply and pumping stations for Reeseville and Tomahawk, Wis., numerous laundry power plants (names given in application), etc., also general consulting work for Wedron Silico Co., Chicago Brick Co., etc., survey and map work, cost estimates, etc., Since 1926 consulting and Designer on structural and other features of locks, gates and other structures for Div. of Waterways of Illinois, deep waterway from Lockport to Steward Rock, under M. G. Barnes, W. M. Smith and L. D. Cornish. Nov. 1921 to Dec. 1922 also Asst. San. Engr., San Dist. of Chicago, pumping station design and remodeling treatment plant layout, budget, and Asst. to Prin. Asst. Engr. *TT 5.6: P 5.6: RC 5.6: D 5.6.* *TT 16.4: SP 4.1: P 12.3: RC 11: D 8.8.* Refers to E. T. Almy, Jr., M. G. Barnes, J. B. Bassett, M. Blanchard, L. D. Cornish, W. M. Smith.

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(9) BUTLER, ARTHUR GRAY, Assoc. M., Care, Louisville Gas & Elec. Co., Louisville, Ky. (Elected Junior June 23, 1916; Assoc. M. Oct. 9, 1917.) (Age 38. Born Terre Haute, Ind.) 1910 B. S., Rose Pol. Inst. *TT 2: SP 2.* Summers (prior to 1910) and June 1910 to May 1912 with Pennsylvania R. R. Co., after June 1910 with Eng. Corps, at Logansport, on maintenance work. *TT 1.9: P 1.9.* May 1912 to June 1917 with Henry Bickel Co., Louisville, Ky., until April 1913 as Engr. on layout work of High St., steam station, Louisville, Ky. Co., excavation, foundations and tunnels (\$300 000), then Engr. on plant layout and design, widening Louisville and Portland Canal (\$800 000) and after Feb. 1914 Supt. of Constr. on same canal; also handled smaller jobs of excavation, foundations, underpinning and sewer work; in responsible charge of construction. *TT 5.1: P 5.1: RC 4.3: D 0.8.* July to Dec. 1917 Constr. Engr. on main sewer, Camp Taylor, and other work (\$100 000). *TT 0.5: P 0.5.* Jan. 1918 to date Supt. of Constr. and Gen. Supt. of Constr., Louisville Gas & Elec. Co., additions to Waterside Steam Plant, Beargrass Gas Plant, three electric substations, gas holders, office, and warehouse and office buildings, hydro-electric plant, Ohio Falls, Dam 41, Ohio River and miscellaneous work (total \$22 200 000); has been in responsible charge of materials inspection, design of construction plant and plant layout, etc.; consulted on design of permanent work, especially foundations. *TT 9.2: P 9.2: RC 8.* *TT 18.7: SP 2: P 16.7: RC 12.3: D 0.8.* Refers to G. R. Bickel, W. M. Caye, J. M. Johnson, C. Keller, W. H. McAlpine, J. C. Murphy, H. G. Roby, G. R. Smiley.

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(12) CHASE, CLIFFORD EARL, Assoc. M., Wenatchee, Wash. (Elected April 7, 1915.) (Age 40. Born Lester, Nebr.) 2 years student, School of Eng., Washington State Coll. *TT 0.6: SP 0.6.* June to Sept. 1902 Stakeman, and June to Sept. 1903 Chainman, June to Sept. 1907 on construction, and Aug. 1908 to Aug. 1910 Engr.-in-Chg., all for Wenatchee (Wash.) Canal Co. *TT 2.2: P 2.2: RC 2: D 2.* June to Sept. 1904 Head Chainman, June to Nov. 1905 Rodman, and Nov. 1905 to Feb. 1906 Draftsman, Billings (Mont.) Land & Irrigation Co. *TT 0.8: SP 0.8.* June to Aug. 1908 Timberman, etc., Federal Mining Co., Mullan, Idaho. *TT 0.2: P 0.2.* Aug. 1910 to May 1917 Supt. and Engr., Okanogan Power & Irrigation Co., Brewster, Wash.; also consulting work, Public Service Comm., Washington. *TT 7: P 7: RC 7: D 7.* May 1917 to June 1919 with U. S. Army Engrs., United States and France, finally as Major. *TT 2: P 2: RC 2.* June 1919 to June 1924 Mgr., G. M. Wagner &

Sons, supervision of growing, assembling and sale of fruits, also construction of warehouses. 1924 to 1925 also Mayor of Wenatchee. June 1924 to date Mgr., and at present Pres., Fruit Growers Service Co., constructed and operating two cold storage plants. *TT 2.5: P 2.5: RC 2.5. TT 15.5: SP 1.5 P 14: RC 13.5: D 9.* Refers to W. L. Bowen, M. Chase, D. C. Henny, J. Jacobs, T. H. Judd, O. L. Waller.

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(1) **CLARK, DAVID**, Assoc. M., Trinity Coll., Dublin, Ireland. (Elected Sept. 12, 1921.) (Age 42. Born Dundee, Scotland.) M. A., Univ. of Dublin. 1912 B. Sc. (Eng.), Univ. of London. *TT 2: SP 2.* April 1901 to Nov. 1906 Pupil and Jun. Asst. under Engr.-in-Chf., Great North of Scotland Ry., Aberdeen, chiefly assisting on roof and bridge design. *TT 5.7: SP 5: P 0.7: D 2.* Dec. 1906 to Jan. 1910 Asst., Caledonian Ry., Glasgow, until Feb. 1908 under Engr.-in-Chf., principally on design and construction of railway widening, consisting of heavy bridge work, covered ways and underpinning; then under Western Dist. Engr. on design and construction of road and railway bridge renewals. *TT 3.2: P 3.2: RC 2: D 3.* Jan. 1910 to Aug. 1912 Senior Asst. under Harbor Engr., Aberdeen, and Res. Engr. in charge of construction of River Dee Dock No. 1 (reinforced concrete), etc. *TT 2.5: P 2.5: RC 2.5: D 0.5.* Aug. 1912 to April 1916 and April 1919 to June 1921 Lecturer in Civ. Eng. and Chf. Asst. to Prof. of Civ. Eng., Royal Technical Coll., Glasgow. *TT 5.9: P 5.9: RC 5.9.* April 1916 to Feb. 1917 Engr. with P. & W. Anderson, Ltd., Contrs., in charge of construction of acid-making plant, Site III, H. M. Factory, Gretna; later Engr. in charge, Site III. *TT 0.8: P 0.8: RC 0.8: D 0.2.* Feb. 1917 to April 1919 Engr., Topham, Jones & Ralston, Ltd., Contrs. in charge of construction of submarine barrier, Scapa Flow, and of Honiton Bay Air Station, Scapa Flow, including jetty, shipways, steel, concrete and timber buildings, water supply, roads and drainage. *TT 2.2: P 2.2: RC 2.2: D 0.5.* July 1921 to date Prof. of Civ. Eng., Trinity Coll., Univ. of Dublin. *TT 5.5: P 5.5: RC 5.5. TT 27.8: SP 7: P 20.8: RC 18.9: D 6.2.* Refers to G. Moncur. (Applies in accordance with Sec. 1, Art. I of the By-Laws.)

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(14) **GREEN, ROY MELVIN**, Assoc. M., 826 Q St., Lincoln, Nebr. (Elected Nov. 25, 1919.) (Age 34. Born McCook, Nebr.) 1914 B. Sc. in Civ. Eng., Univ. of Nebr. 1916 M. Sc. in Highway Eng., Columbia Univ. *TT 2: SP 2.* June to Sept. 1913 Draftsman, Frenchman Valley Irrigation Dist., Culbertson, Nebr. June to Dec. of years 1914 and 1915 and April to Sept. 1916 Asphalt Plant Chemist and Testing Engr. on asphalt paving. *TT 1.4: P 1.4: RC 1.4.* Dec. 1914 to April 1915 and Dec. 1915 to April 1916 graduate student, Columbia Univ. *TT 0.6: SP 0.6.* April to June 1915 Draftsman, Chicago, Burlington & Quincy R. R. Lines West. *TT 0.2: SP 0.2.* Sept. 1916 to Sept. 1918 Asst. Prof., Sept. 1918 to Sept. 1919 Associate Prof., and Sept. 1919 to July 1920 Prof. of Highway Eng., Agricultural and Mechanical Coll. of Texas, in charge of testing laboratory; Cons. Engr. on gravel road investigation, Jefferson-Davis Parish, La., detailed investigation of bituminous pavements in various cities in Texas. *TT 3.9: P 3.9: RC 2.7.* July 1920 to date Pres. and Mgr., Western Laboratories, Lincoln, Nebr., inspecting asphalt paving and testing various paving materials, making investigations of pavements and of Nebraska sands and gravels. *TT 6.5: P 6.5: RC 6.5. TT 14.6: SP 2.8: P 11.8: RC 10.6.* Refers to J. A. Bruce, F. T. Darrow, W. Grant, C. J. McNamara, C. E. Mickey, J. C. Nagle, H. S. Nixon.

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(1) **GREENOUGH, PERCY JULIAN**, Assoc. M., 9919 Guilford St., Forest Hills, N. Y. (Elected Junior April 19, 1920; Assoc. M. Sept. 12, 1921.) (Age 34. Born Portsmouth, N. H.) May 1912 to May 1917 Asst. in office of County Engr., Essex County, Salem, Mass. *TT 5: SP 0.9: P 4.1.* June 1917 to Jan. 1919 with U. S. Army as 2d Lieut., Engr. Officers' Reserve Corps, with 1st Engrs., A. E. F., 1st Lieut., 312th Engrs., Camp Pike, Ark., and 209th Engrs., Camp Sheridan, Ala. *TT 1.5: P 1.5: RC 1.5.* Jan. to June 1919 Supt., contract highway construction, rock excavation, Polk County, Ducktown, Tenn. *TT 0.5: P 0.5: RC 0.5.* June 1919 to March 1923 Constr. Engr., Woodhaven (N. Y.) Water Supply Co., in charge of design and construction of pipe lines, pumps and buildings. *TT 3.7: P 3.7: RC 2.7: D 1.* March 1923 to date owner and Mgr., P. J. Greenough Eng. Co., contract construction, sewers and highway work for Borough of Queens, New York City. *TT 3.7: P 3.7: RC 3.7. TT 14.5: SP 0.9: P 13.6: RC 8.5: D 1.* Refers to H. F. Cameron, S. Cosby, R. R. Evans, J. D. C. Mackey, J. F. Perrine, J. R. Slaterry, J. B. Wright.

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(14) **GUEST, JOHN HENRY**, Assoc. M., City Hall, El Dorado, Ark. (Elected Junior April 14, 1919; Assoc. M. Nov. 9, 1920) (Age 34. Born in Cleveland County, Ark.) 1916 B. S. in C. E., and 1917 C. E., N. Y. Univ. *TT 2: SP 2.* June 1916 to April 1917 Rodman, Chicago, Rock Island & Pacific Ry. on maintenance, being Chf. of party in field and on office work. *TT 0.8: SP 0.4: P 0.4.* April to May 1917 Instrumentman, Texas &

Pacific Ry. Co., *TT 0.1: P 0.1.* May 1917 to March 1918 Instrumentman, Ballast Inspector and Asst. Div. Engr., St. Louis South Western Ry. Co., field work and some office work. *TT 0.9: P 0.9: RC 0.6.* April to Dec. 1918 with U. S. Army, Replacement Troops, Asst. Instructor in Officers' Training School and few weeks on railway trestle design. *TT 0.7: SP 0.6: P 0.1.* Jan. 1919 to Oct. 1925 Owner and Mgr., Guest Eng. Co., and (April 1919 to May 1922) City Engr., Pine Bluff; designed, laid out and supervised construction of sanitary sewers (\$100 000) and pavement (\$150 000) in Pine Bluff and 15 miles of gravel highway in Grant County; 1924 and 1925 (6 months) made reservoir survey, topographic survey and mapping for damsite, layout work for relocation of railroad and highway, mapping and layout work for construction of dam for Arkansas Light & Power Co., on Ouachita River Power Development; also surveys, mapping and drainage and city subdivision work. *TT 6.7: SP 0.2: U 6.5: RC 6: D 0.5.* Oct. 1925 to date City Engr., El Dorado, established all street grades, much resurvey work, building inspection, etc.; also designed and supervised construction of concrete culverts. *TT 1.3: P 1.3: RC 1.3 D 0.5.* *TT 12.5: SP 3.2: P 9.3: RC 7.9: D 1.* Refers to W. D. Dickinson, A. Haring, A. M. Lund, D. A. MacCrea, E. J. Nichols, J. R. Rhyne, C. H. Snow, W. H. Vance, G. A. Watkins.

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(1) **HADLEY, ALLEN STACY**, Assoc. M., Care, Nippon Oil Co., Ltd., Marunouchi, Tokyo, Japan. (Elected June 18, 1918.) (Age 43. Born Topeka, Kans.) 3 years student, Leland Stanford Univ. *TT 1: SP 1.* 1903 to 1907 various positions as Chainman, Transmittan, Draftsman, etc. *TT 4: SP 4.* Oct. 1907 to Jan. 1908 Office Engr., Las Vegas & Tonapah Ry., Beatty, Nev. *TT 0.2: P 0.2: RC 0.2: D 0.2.* Jan. to Aug. 1908 Deputy County Surveyor, Riverside, Cal., in charge of location of grade mountain road. *TT 0.7: P 0.7: RC 0.7: D 0.7.* Sept. 1908 to Jan. 1909 Acting Div. Engr., and June to July 1912 Draftsman in Chf. Engr.'s office, Atchison, Topeka & Santa Fe Ry. *TT 0.5: SP 0.2: P 0.3: RC 0.3: D 0.3.* 1909 Locating Engr., Missouri & Cameron Ry., in Missouri. *TT 1: P 1: RC 1: D 1.* Jan. to April 1910 Inspector, Kansas City Southern Ry. *TT 0.3: SP 0.3.* April to Aug. 1910 Transmittan, Chicago, Rock Island & Pacific Ry. *TT 0.3: SP 0.3.* Aug. 1910 to Jan. 1911 Locating Engr., Kansas Ry., Southeastern Kansas. *TT 0.3: P 0.3: RC 0.3: D 0.3.* Jan. to May 1911 Asst. Locating Engr., Winnepeg, Salina & Gulf Ry. *TT 0.3: P 0.3: RC 0.3: D 0.3.* June 1911 to March 1912 Locating Engr. and Res. Engr., Kansas City Clay County & St. Joseph Ry. *TT 0.9: P 0.9: RC 0.9: D 0.9.* July to Sept. 1912 and March to July 1913 Inspector, Kansas City Terminal Ry. *TT 0.7: SP 0.7: RC 0.7.* Sept. 1912 to Jan. 1913 Asst. Chf. Engr., Mesaba Ry., Virginia, Minn. *TT 0.3: P 0.3: RC 0.3: D 0.3.* Jan. to March 1913 Locating Engr., Kansas City, Lawrence & Topeka Ry. *TT 0.2: P 0.2: RC 0.2: D 0.2.* Aug. 1913 to April 1914 Locating Engr., C. A. Chapman, Inc., Chicago, Ill. *TT 0.7: P 0.7: RC 0.7: D 0.7.* Sept. 1914 to April 1917 Chf. Engr., W. K. Palmer Co., Cons. Engrs., Kansas City, Mo. *TT 2.7: P 2.7: RC 2.7: D 2.7.* July 1917 to Sept. 1918 Engr. in charge, Tarvia Dept., The Barrett Co., Kansas City, Mo. *TT 1.2: P 1.2: RC 1.2: D 1.2.* Sept. 1918 to Dec. 1919 1st Lieut., Engrs., U. S. Army. *TT 1.2: SP 1.2.* Jan. 1920 to Jan. 1922 in automobile business in Texas. Jan. to June 1922 Engr. and Supt., for Dewitt & Wees, Archts., San Antonio, Tex., on reinforced concrete design and construction. *TT 0.5: P 0.5: RC 0.5: D 0.5.* July 1922 to Feb. 1923 Engr., Southwest Bitulithic Co., San Antonio. *TT 0.7: P 0.7: RC 0.7.* May 1923 to April 1926 Engr. and Gen. Supt., Gulf Bitulithic Co., Houston, Tex. *TT 3: P 3: RC 3: D 3.* April 1926 to date Engr. representing Warren Bros. Co. of Boston, Mass., with Nippon Oil Co., Ltd., Tokyo, Japan. *TT 1: P 1: RC 1: D 1.* *TT 21.9: SP 7.7: P 14.2: RC 15.1: D 13.5.* Refers to S. F. Crecelius, J. C. McVea, F. E. Rightor, A. P. Rollins, A. D. Stivers.

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(13) **HAMMILL, HAROLD BERNARD**, Assoc. M., 42 Portsmouth Road, Piedmont, Cal. (Elected Junior April 2, 1913; Assoc. M. March 9, 1920.) (Age 36. Born Sacramento Cal.) 1912 B. S., Coll. of Civ. Eng., Univ. of Cal. *TT 2: SP 2.* May 1912 to June 1914 with Pacific Gas & Elec. Co., until Aug. 1912 as Field Draftsman on canal surveys, then in Civ. Eng. Dept. on design of steel and concrete structures for hydro-electric developments. *TT 2.1: SP 0.3: P 1.8: D 1.8.* June 1914 to Jan. 1915 Steel Detailer, American Bridge Co., Gary, Ind. *TT 0.6: SP 0.6.* Jan. 1915 to Jan. 1916 Designer, derricks and cranes, Terry & Tench Co., New York City. *TT 1: P 1: RC 0.5: D 1.* Jan. 1916 to July 1917 in Hydr. Dept., Elec. Bond & Share Co. on design of steel, concrete and timber structures, dams, flumes, etc., for hydro-electric installations. *TT 1.5: P 1.5: D 1.5.* July 1917 to April 1918 Designing Engr., Edw. F. Terry Mfg. Co., on design of derricks and shipyard cranes. *TT 0.7: P 0.7: RC 0.7: D 0.7.* April 1918 to March 1919 Lieut. (J. g.), U. S. Naval Reserve Force, on erection of radio towers at Croix d'Hins, France. *TT 0.9: P 0.9: RC 0.5: D 0.9.* March 1919 to Feb. 1920 Asst. Civ. Engr., Pacific Gas & Elec. Co., on design of concrete, steel and timber structures for hydroelectric developments. *TT 0.9: P 0.9: RC 0.9:*

D 0.9. Feb. 1920 to Dec. 1926 (except March 1922 to Feb. 1923 with California Highway Comm. on Pittsburgh Test Road) with Jno. B. Leonard, Cons. Engr., San Francisco, until March 1922 and Feb. to Aug. 1923 and Oct. to Dec. 1926 designing bridges; Aug. 1923 to March 1926 associated with Mr. Leonard in structural engineering practice; March to Oct. 1926 Res. Engr. on sea-wall constructions, Seacliff Park, Santa Cruz, Cal. TT 6.8: P 6.8: RC 6.8: D 5.7. Dec. 1926 to date Cons. Engr. TT 0.2: P 0.2: RC 0.2. TT 16.7: SP 2.8: P 13.9: RC 9.6: D 12.6. Refers to L. Aldrich, J. B. Leonard, R. A. Monroe, I. C. Steele, H. C. Vensano.

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(1) HEPBURN, GEORGE HUNT, Assoc. M., Care, R. W. Hebard & Co., Inc., San Salvador, El Salvador, Central America. (Elected July 9, 1923.) (Age 45. Born Philadelphia, Pa.) May 1900 to Sept. 1901 Draftsman, Chefe de Servicios Diversos, Usina Wigg, Miguel Burnier, Brazil. TT 1.3: SP 1.3. Jan. 1902 to Sept. 1904 Mine Surveyor, La Favorite Mine, Baján, Coahu., Mexico. TT 2.7: SP 0.7: P 2. Nov. 1904 to April 1906 Asst. Supt., Supt. and Hidalgo Placer Mining & Milling Co., Parral, Mexico. TT 1.4: P 1.4: RC 1.4. May 1906 to April 1907 Mill Supt., Mexican Mines Syndicate, Cusjikuiriachic, Chih., Mexico. TT 0.9: P 0.9: RC 0.9. Oct. 1907 to June 1908 Transitman, Madeira-Mamore Ry., Porto Belho, Amazonas, Brazil. TT 0.7: P 0.7. Feb. to May 1909 Transitman, Parsons Pulp & Lumber Co., Saltville, Va., railway location. TT 0.3: P 0.3. June to Dec. 1909 Instrumentman, Acting Res. Engr., Key West Extension, Florida East Coast Ry., Marathon, Fla. TT 0.5: P 0.5: RC 0.4. Aug. 1910 to April 1913 Instrumentman, Acting Res. Engr., Connellsville Extension, Western Maryland Ry., Cumberland, Md. TT 2.7: P 2.7: RC 2.1. Nov. 1913 to March 1914 reconnaissance and investigation of resources of Beni River district of Bolivia and negotiation of concessions for Baltimore Syndicate. TT 0.3: P 0.3. April 1914 to June 1920 Chf. Engr., Empresa George Wilson, Oruro, Bolivia, railroad construction and mining operations. TT 6.2: P 6.2: RC 6.2. July 1920 to Jan. 1921 Chf. Engr., Guggenheim Bros., La Paz, Bolivia, development of tin properties at Caracoles, Bolivia. TT 0.5: P 0.5: RC 0.5: D 0.5. April 1922 to Jan. 1923 Asst. Supt., Cia. de Real del Monte y Pachuca, Pachuca, Mexico, driving and lining 3 800-m. pressure tunnel for hydro-electric development at Necaxa, Mexico. TT 0.8: P 0.8: RC 0.8. Feb. 1923 to June 1924 Chf. of Party, location, North Carolina State Highway Comm. TT 1.3: P 1.3: RC 1.3: D 1.3. June 1924 to June 1925 Constr. Engr., highway construction, J. F. Mulligan Constr. Co., North Wilkesboro, N. C. TT 1: P 1: RC 1. July to Nov. 1925 Senior Inspector, highway construction, Pennsylvania State Dept. of Highways, Harrisburg, Pa. TT 0.3: P 0.3: RC 0.3. Dec. 1923 to date Locating Engr., R. W. Hebard & Co., Inc., San Salvador, El Salvador. TT 1.1: P 1.1: RC 1.1: D 1.1. TT 22: SP 2: P 20: RC 16: D 3.7. Refers to O. B. Bester, J. H. Caton, 3d, E. D. Cruise, M. E. Gilmore, R. C. Hardman, G. D. Macy.

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(3) HEVENOR, GLOSTER PARNELL, Assoc. M., 245 Melrose St., Rochester, N. Y. (Elected Nov. 26, 1923.) (Age 38. Born Salamanca, N. Y.) 1909 completed Civ. Eng. course, International Correspondence Schools. 1910 to 1911 student in Civ. Eng., Ohio Northern Univ. TT 0.3: SP 0.3. May to Nov. 1908 Laborer, acting as Rodman and as Jun. Inspector on highway construction and repair, Western Div., New York State Engr. Dept. TT 0.5: SP 0.5. Jan. 1909 to Sept. 1910 Chainman, Rodman and Transitman in charge of field party, Buffalo, Rochester & Pittsburgh R. R. TT 1.7: SP 1.7. June 1911 to Sept. 1923 with City of Rochester, N. Y., until June 1912 as Transitman in charge of field party on levels, construction of sewers, pavements, etc., and surveys, Dept. of Eng.; then Senior Transitman in charge of precise level surveys of city; Feb. 1914 to March 1916 Asst. Engr. in charge of topographic surveys of territory surrounding city and miscellaneous surveys; after March 1916 Asst. Office Engr. in charge of design of sewers, pavements and miscellaneous structures, of preparation of estimates for construction work, and of field office, drafting room and record room (reporting to Office Engr.) TT 12.2: P 12.2: RC 12.2: D 7.5. Sept. 1923 to Dec. 1925 Treas., George R. Newell, Inc., Cons. Engrs. in charge of design and supervision of construction of sewer systems (\$1 400 000), pavements (\$975 000), Town of Irondequoit, N. Y., reinforced concrete reservoir (\$130 000), Salamanca, N. Y., and supervision of construction of 3-span reinforced concrete arch bridge (\$88 000), Le Roy, N. Y. TT 2.2: P 2.2: RC 2.2: D 1. Jan. 1926 to date Secy.-Treas., Hevenor & Weller, Inc., Civ. Engrs., firm has designed and has engineering supervision of sewer systems (approx. 58 miles), water mains (approx. 30 miles), sewage-treatment plant (\$75 000) and pavements (aggregate cost about \$5 000 000). TT 1.2: P 1: RC 1.2: D 0.5. TT 18.2: SP 2.5: P 15.7: RC 15.7: D 9. Refers to R. B. Jeffers, I. E. Matthews, E. V. R. Payne, W. W. C. Perkins, W. F. Pond, C. A. Poole, W. E. Weller.

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(11) KENDALL, FRANK B, Assoc. M., Sun Bldg., Los Angeles, Cal. (Elected Feb. 4, 1914.) (Age 44. Born Reading, Pa.) Jan. 1901 to Aug. 1902 Utilityman and Instrumentman, Philadelphia & Reading Ry., on maintenance. TT 1.5: SP 1.5. Aug. 1902 to April 1903 Draftsman and Asst. Engr., Pine Bluff & Western Ry., construction, bridge design, estimating, 50 miles. TT 0.7: SP 0.7: D 0.2. April 1903 to Jan. 1906 Draftsman, Instrumentman and Chf. Draftsman, Choctaw, Oklahoma & Gulf R. R. (later Rock Island), location, construction and maintenance, yard, bridge and building design. TT 2.8: SP 0.3: P 2.5: RC 1: D 1. Jan. to April 1906 Chf. Draftsman, St. Louis, Rocky Mountain & Pacific Ry., construction detail with bridge and building design. TT 0.3: P 0.3: RC 0.2: D 0.1. May 1906 to April 1907 Chf. Draftsman and Office Engr., Great Northern Ry., construction details, including bridge design. TT 0.9: P 0.9: RC 0.7: D 0.2. April 1907 to Jan. 1910 Draftsman, Estimateman and Asst. Engr., Southern Pacific Lines in Arizona and Mexico on location, construction and maintenance. TT 2.7: P 2.7: RC 0.5: D 0.5. Feb. to Oct. 1910 Asst. Engr. and Office Engr., Lehigh Valley Ry., on location and construction, bridge foundations and details. TT 0.7: P 0.7: RC 0.5: D 0.2. Nov. 1910 to May 1911 Asst. Engr., P. & R. Ry., on maintenance, general details with design for new yard facilities at Bridgeport, and other places. TT 0.6: P 0.6: D 0.3. June 1911 to Aug. 1912 Draftsman in charge Part 2, railroad yard and terminal design, field work, Toronto Grade Separation. TT 1.2: P 1.2: RC 0.5: D 0.5. Aug. 1912 to Jan. 1914 in private practice of engineering and surveying, Brantford, Ont., Canada. TT 1.5: P 1.5: RC 1.2: D 0.2. Jan. to Sept. 1914 with Toronto Harbor Comm., detail drafting, design and field work on water-front development. TT 0.7: P 0.7: RC 0.3: D 0.2. Sept. 1914 to Jan. 1919 valuation statistics, field investigations, bridge construction and yard design, Southern Pacific Lines in Arizona and Mexico. TT 4.2: P 4.2: RC 2.7: D 0.5. Jan. 1919 to Nov. 1920 in private practice of engineering in Southern Arizona. TT 1.9: P 1.9: RC 1.9. Nov. 1920 to Nov. 1922 valuation, field and office, maintenance estimates and design, Southern Pacific Lines in Arizona and California. TT 2: P 2: RC 1.2: D 0.2. Nov. 1922 to April 1923 Chf. of field party on engineering, Union Oil Co. TT 0.4: P 0.4. April 1923 to Feb. 1924 computing and designs for subdivisions, Seaboard Eng. Co. TT 0.8: P 0.8: RC 0.2: D 0.2. Feb. 1924 to date Asst. and Chf. Engr., Frank L. Meline, Inc., general engineering, designs for sanitary sewers, storm drains, street paving, design for diversion dam, in charge of works under construction (estimated cost about \$3 000 000). TT 2.5: P 2.5: RC 1.6: D 0.3. TT 25.7: SP 2.4: P 23.3: RC 13.7: D 4.8. Refers to W. W. Amburn, W. H. Hurlbut, W. W. Hurlbut, J. C. McClure, B. Moody, D. L. Reaburn, G. E. P. Smith, W. Woodard, A. S. Zinn.

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(9) LEE, LASLEY, Assoc. M., 164 East Lakeview Ave., Columbus, Ohio. (Elected March 11, 1919.) (Age 40. Born Carbondale, Pa.) 1910 B. S. Mass. Inst. Tech. TT 2: SP 2. June 1910 to Aug. 1911 Asst. Engr., City Engr.'s office, Sioux City, Iowa. TT 1.2: SP 0.6: P 0.6: D 0.6. Aug. 1911 to date with U. S. Geological Survey, until June 1921 as Jun. or Asst. Hydr. Engr., Water Resources Branch, in California, Washington and District of Columbia, and since July 1921 Dist. Engr., Ohio Dist., at Columbus, Ohio. TT 15.3: P 15.3: RC 5.5: D 1. TT 18.5: SP 2.6: P 15.9: RC 5.5: D 1.6. Refers to F. H. Eno, N. C. Grover, J. C. Hoyt, C. T. Morris, J. C. Prior, J. R. Shank, R. C. Sloane.

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(11) MOWER, LELAND MONROE, Assoc. M., 912 Olive St., Santa Barbara, Cal. (Elected Junior Sept. 12, 1921; Assoc. M. May 19, 1924.) (Age 32. Born Auburn, Me.) 1917 B. S. in C. E., Univ. of Me. TT 2: SP 2. July to Oct. 1915 Rodman and Chainman, Jackson-Kineo Highway, Maine. June to Oct. 1916 Inspector in manufacture of 6-in. shells, Am. Brakeshoe & Foundry Co., Erie, Pa. May to Oct. 1917 and Jan. 1919 to May 1923 Deck Officer and Commissioned Officer, U. S. Coast and Geodetic Survey, in responsible charge on wire-drag work, sounding operations, Chf. of signal-building party, etc. TT 4.8: P 4.8: RC 4.8. Oct. 1917 to Dec. 1918 with U. S. Army, until July 1918 as Private to Corporal in Field Artillery, computations on firing data, surveying, etc., then Second Lieut., Engrs., Personnel Officer, 136th Light Ry. Troops, Ft. Harrison, Ind. TT 1.2: P 1.2: RC 0.4. June to Aug. 1923 Instrumentman on roads, Duval County, Fla. TT 0.2: P 0.2: RC 0.2. Sept. 1923 to June 1924 Inspector, Bureau of Public Works, at Miami Beach (1 month) and San Francisco, Cal. TT 0.8: P 0.8: RC 0.8. June to Dec. 1924 Asst. Chf. of Party, East Bay Municipal Utility Dist. TT 0.6: P 0.6. April 1925 to date Asphalt Engr., Standard Oil Co. of California, acting as Chf. Chemist in road laboratory, office work on contracts, bids, working up and advising on roof and road specifications; since May 1926 Asphalt Salesman, Santa Barbara office. TT 1.7: P 1.7: RC 1.7: D 0.3. TT 11.3: SP 2: P 9.3: RC 7.9: D 0.3. Refers to J. W. Oakley, O. H. O'Neill, C. W. Petit, C. W. Pierce, H. E. Reddick, L. R. Walker.

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(2) **NORD, CHARLES LOUIS**, Assoc. M., 2 Hartley St., Hamden, Conn. (Elected Jan. 17, 1921.) (Age 46. Born Duesseldorf, Germany.) 1902 C. E., Imperial Pol. Inst., Univ. of Strassburg. TT 2: SP 2. 1902 to 1903 with Chas. Werner, Brooklyn, N. Y., designing parts of steelwork for Peoples Bank & Trust Co. Bldg., detailing. TT 1: P 1: D 1. 1903 to 1905 with Fernekes & Kramer, Milwaukee, Wis., designing industrial buildings, retaining walls, small concrete dam; supervision. TT 2.1: P 2.1: RC 0.7: D 1.4. 1906 to 1909 with John McLaughlin Constr. Co., Milwaukee, designing, shop detailing of steel and reinforced concrete industrial structures, bridges, superintending. TT 2.5: P 2.5: RC 1: D 1.5. 1909 (about 7 months) traveling. 1909 to 1912 Asst. Engr., City of Waterbury, Conn., on construction of city water supply, Morris Dam and Reservoir; in charge of construction of Pig Tunnel and Diversion Dam, progress reports, etc. TT 3: P 3: RC 1. 1913 to 1919 with New York, New Haven & Hartford R. R., New Haven, Conn., designing railroad and highway bridges, strengthening and investigating capacity of bridges, etc. TT 5.7: P 5.7: D 5.7. 1919 to 1922 Asst. Engr. with Buck & Sheldon, Hartford, Conn., designing reinforced concrete and steel buildings, investigating structures, supervising. TT 2.3: P 2.3: RC 1: D 1.3. 1922 to date Bridge Engr., Connecticut State Highway Dept., designing reinforced concrete and steel bridges, grade-crossing eliminations, etc., investigations, reports, preparing building program, etc. TT 4.5: P 4.5: RC 4.5. TT 23.2: SP 2: P 21.2: RC 8.3: D 10.9. Refers to G. E. Beggs, C. Blakeslee, H. R. Buck, A. W. Bushell, F. L. Ford, G. E. Hamlin, P. G. Laurson, J. A. L. Waddell.

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(10) **SEIBERT, EDWARD CLEVER**, Assoc. M., U. S. Naval Station, Key West, Fla. (Elected Jan. 17, 1921.) (Age 32. Born near Hagerstown, Md.) 1914 C. E., Lehigh Univ. 1917 M. S., Pa. State Coll. TT 2: SP 2. Part of summer 1912 Asst. to Div. Engr., Baltimore Sewerage Comm. Part of summer 1913 Mech. Draftsman, Didler-March Co., Didler, Pa., on design of machine parts. June to July of years 1914 and 1915 Asst. Instructor in Plane and Topographic Surveying, Summer School, Lehigh Univ. TT 0.2: SP 0.2. Sept. 1914 to June 1915 Instructor in Civ. Eng., Univ. of South Carolina. TT 0.8: SP 0.8. Sept. 1915 to June 1917 Instructor in Civ. Eng., Pennsylvania State Coll., also graduate student. June to Aug. 1916 Computer, Miami Conservancy Dist., Dayton, Ohio. TT 1.7: P 1.7. June to Oct. 1917 Lieut. (j.g.), Oct. 1917 to June 1920 Lieut. (temporary), June 1920 to Oct. 1925 Lieut., and Oct. 1925 to date Lieut. Commander, U. S. Navy, until Oct. 1925 acting as Asst. Civ. Engr., and since then Civ. Engr., engaged as follows: part of summer 1917 student, U. S. Naval Academy; Aug. 1917 to June 1920 in (old) Second Naval Dist., Newport, R. I., in Public Works Dept., construction work on power-plants, camps, wharves, etc.; approx. 6 months Acting Public Works Officer; June 1920 to July 1922 Civ. Engr., U. S. Navy Yard, Washington, D. C.; July 1922 to March 1923 at Bureau of Yards and Docks, Navy Dept., on design of U. S. Veterans' Hospital, Gulfport, Miss.; March 1923 to Aug. 1924 Officer in charge of construction of same hospital (contract approx. \$727 000); since Aug. 1924 Public Works Officer, Naval Operating Base, Key West, Fla., and of 7th Naval Dist.; since Jan. 1925 also Industrial Mgr., Naval Operating Base, Key West. TT 9.7: P 9.7: RC 8.7: D 0.8. TT 14.6: SP 3.2: P 11.4: RC 8.7: D 0.8. Refers to R. E. Bakenhus, L. E. Gregory, S. L. McGlathery, G. A. McKay, H. H. Rousseau, E. D. Walker.

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(1) **WEIR, CARL LESLIE**, Assoc. M., 41 East Forty-Second St., New York City. (Elected April 14, 1919.) (Age 36. Born New York City.) Registered Engr. and Surveyor, States of New York and Pennsylvania. 4 years (evenings) student, Cooper Union. Nov. 1905 to May 1910 Clerk, Rodman, Inspector and Draftsman, Board of Water Supply, New York City, Gen. Minor Asst. on various kinds of field work and construction. May 1910 to May 1911 Instrumentman, Chf. of Party, Inspector of materials, final estimates, tunnel and reinforced concrete construction, New York Subways. May 1911 to Oct. 1912 Eng. Asst. on Barge Canal, New York State, Inspector of steel bridge erection, timbering, piles, Chf. of Party on line and grade for construction of locks, lock gates, prism, estimates, computations, etc. Oct. 1912 to July 1913 Asst. Surveyor and Draftsman at Register's Office, New York City. July 1913 to July 1914 Eng. Draftsman and Designer, Public Service Comm., New York City, design of double-decked subway, steel and reinforced concrete construction, 42d St., Crossing, 4th to Lexington Ave., preliminary design, Sec. No. 4, 7th Ave. Subway and Lexington Ave. N. of 42d St. July to Nov. 1914 Engr. in charge of contract, Groton (N. Y.) Road (brick and macadam) (contract \$75 000). Nov. 1914 to Jan. 1917 Gen. Inspector, Public Service Comm., New York City, on subway construction, responsible for construction, Sec. 3, Routes 4 and 38 (Varick St.). Jan. to March 1917 Sub-Contr., constructed two apartment house foundations in New York City. March 1917 to March 1918 with Westinghouse, Church, Kerr & Co. as Field Engr. and Asst. to Supt. on construction of railroad repair shops, terminal, etc., at

Salamanca, N. Y., also at Ivanhoe, Va., on chemical plant construction. March 1918 to Jan. 1919 with U. S. Army, charge of field party on road work (about 2 months), and of design of water supply (2 000 000 gal. per day), dam and appurtenances, filter house and machinery layout, 9 miles of pipe-line including trestles, relocation of roads and small bridges. *TT 13: SP 8: P 5: RC 2.4: D 1.4.* May to Sept. 1919 Engr. Designer, National Cable & Conduit Co., building and plant alteration, new building design, pile foundations; specifications for building alteration. *TT 0.4: P 0.4: D 0.4.* Sept. 1919 to date Const. Engr. and Archt., American Ice Co., in charge of all building and construction work as Chf. of Dept. consisting of design, construction supervision, specification and contract (\$250 000 to \$500 000 annually) in various cities; construction involved timber and concrete piling, for water-front and inland projects, flat slab and reinforced concrete, structural steel, timber and masonry, unusual design and construction of ice storage buildings, including sewers, roads, towers, etc.; preparation and presentation of appeals, etc., regarding building restrictions, layouts and construction of coal pockets, yards, etc.; also reports on condition of structures for various uses, construction of residences, garages, etc. *TT 7.4: P 7.4: RC 7.4: D 7.4.* *TT 20.8: SP 8: P 12.8: RC 9.8: D 9.2.* Refers to W. W. Brush, A. D. Flinn, H. Fougner, E. J. Moore, T. Pettigrew, T. Saville, J. R. Worcester.

FROM THE GRADE OF AFFILIATE

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(13) DAVIS, FREDERICK CALVIN, Affiliate, 515 Buena Vista Ave., San Francisco, Cal. (Elected Jan. 7, 1913.) (Age 64. Born Lansing, Mich.) 1907 received certificate to practice architecture, State of California. 1886 B. S. C. E., Mich. State Coll. 1888 B. S. C. E., Univ. of Mich. *TT 2: SP 2.* 1887 (about 3 months) Transitman, St. Paul & Duluth R. R. Co. *TT 0.2: SP 0.2.* 1888 to 1889 designing and inspecting, under City Engr., Chicago, Ill., on intake No. 2 in Lake Michigan for city water supply. *TT 1: P 1: D 0.5.* 1890 to 1910 Structural Engr. with Gladding, McBean & Co., San Francisco, at clay products factory at Lincoln and in San Francisco, on factory problems, designing kilns, machinery, terra-cotta layouts for buildings, etc., including designing steelwork for overhanging terra-cotta cornices, etc. 1893 to 1901 also City Engr. of Lincoln, establishing street grades, resurveying city and locating property lines. *TT 20: SP 2: P 18: RC 18: D 6.* 1910 to 1914 Managing Engr., Pacific Clay Products Publicity Bureau, San Francisco, promotional work. *TT 4: SP 2: P 2: RC 2: D 2.* 1914 to date Structural Engr., Gladding, McBean & Co., designing and consulting on structural problems and support of terra-cotta; designed structural part of terra-cotta and adjacent steelwork for Union Steamship Co.'s 14-story Office building at Sydney, Australia (1916) structural part of terra-cotta and adjacent supports for Mitsubishi Bank Bldg. (1917) and for 7-story office building for Nippon Yusen Kaisha, and as building for Brunner, Mond & Co. (1921) all in Tokyo; 1923 to 1924 advised architects and engineers and designed and made specifications for reconditioning Yusen Office Bldg., Tokyo (damaged in earthquake). *TT 12: SP 2: P 10: RC 5: D 5.* *TT 39.2: SP 8.2: P 31: RC 26.3: D 18.3.* Refers to J. R. Cahill, H. D. Dewell, J. B. Leonard, V. H. Poss, E. T. Thurston, H. C. Vensano.

FROM THE GRADE OF JUNIOR

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(3) BOLAND, CHARLES JOSEPH, Jun., 2175 Fourteenth St., Troy, N. Y. (Elected Nov. 28, 1916.) (Age 31. Born Troy, N. Y.) 1916 C. E., Rens. Pol. Inst. *TT 2: SP 2.* Summers 1912-1915 and June 1916 to date (except Nov. 1917 to Jan. 1919 First Lieut., U. S. Air Service, A. E. F. in France, construction of air domes, hangars, sanitary and sewerage systems) with C. P. Boland & Co., Engrs. and Contrs., Troy, N. Y., as follows; summers 1912-1915 Timekeeper and Asst. to Instrumentman on engineering and building operations; June 1916 to June 1917 Foreman and Engr. on construction and equipment of paper mill, Cohoes, N. Y.; July to Nov. 1917 Engr. and Asst. Supt. in charge extension and betterments main gun shop and appurtenances, U. S. Arsenal, Watervliet, N. Y.; Jan. 1919 to April 1920 Engr. in charge of design and Supt. in charge of construction of wall paper mill, Cohoes, N. Y.; April 1920 to April 1921 Supt. on construction of school buildings, Troy; since April 1921 Engr. on design and Supt. of structural steel and reinforced concrete hotels, warehouse and educational buildings, commercials, etc. *TT 10.8: SP 1.1: P 9.7: RC 8.3: D 6.3.* *TT 12.8: SP 3.1: P 9.7: RC 8.3: D 6.3.* Refers to E. W. Golden, D. B. LaDu, T. R. Lawson, W. H. Mansfield, P. C. Ricketts, P. Schultze.

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(1) **BULLOCK, VIRGIL WILLIAM**, Jun., 905 West 175th St., New York City. (Elected Oct. 12, 1925.) (Age 31. Born Blanchard, Iowa.) 1925 B. S. in C. E., Univ. of Wash. *TT 2: SP 2.* Oct. 1920 to Oct. 1921 Draftsman, Washington State Highway Dept., drafting and computations. *TT 1: SP 1.* July to Dec. 1922 Field Draftsman on transmission-line survey, maps, profiles and computations (1922), and April to Dec. 1924 Office Engr., Baker River Project, Concrete, Wash., on design of construction plant and equipment and in charge of mapping, all for Stone & Webster, Inc. *TT 1.1: SP 0.4: P 0.7: RC 0.5: D 0.5.* April to Oct. 1923 with City of Seattle, Skagit River Development, 2 months as Draftsman on steel design and 4 months Levelman on substation and transmission line construction. *TT 0.5: SP 0.3: P 0.2: RC 0.2.* July 1925 to date Structural Designer for H. G. Balcom, Cons. Engr., New York City, design of steel and reinforced concrete buildings. *TT 1.7: P 1.7: RC 1.3: D 1.* *TT 6.3: SP 3.7: P 2.6: RC 2: D 1.5.* Refers to H. G. Balcom, A. L. Kehoe, C. C. More, J. C. Rathbun, W. D. Shannon, F. L. Stearns, C. Wernecke.

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(1) **BURKE, GEORGE LEO**, Jun., 54 South Second Ave., Mt. Vernon, N. Y. (Elected Jan. 18, 1926.) (Age 26. Born Norwood, Mass.) 1923 B. C. E., Northeastern Univ. *TT 2: SP 2.* April to Nov. 1917 Asst. to Plant Supt., Geo. H. Morrill Co., Norwood, Mass., drafting and plant construction. *TT 0.6: SP 0.6.* Nov. 1917 to Sept. 1920 (except 6 months with Heavy Artillery U. S. Army) Asst. to Town Engr., Norwood, on surveys, construction, drafting and job cost records. *TT 2.3: SP 2.3.* July 1923 to July 1924 Supt. for Allen Pope, Washington, D. C., on construction of gasoline distributing system and water supply. *TT 1: P 1: RC 1.* Aug. 1924 to Jan. 1926 Engr., Murrle & Co., New York City, on inventory and valuation. *TT 1.4: P 1.4: RC 0.3.* Jan. 1926 to date Engr., Ford, Bacon & Davis, Inc., New York City, on valuation and reports. *TT 1: P 1.* *TT 8.3: SP 4.9: P 3.4: RC 1.3.* Refers to E. E. Baptiste, G. H. Davis, C. S. Ell, J. H. Gaynor, W. Z. Kline, V. R. Phillips, W. von Phul.

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(10) **GOLDMAN, SAMUEL ROBERT**, Jun., 393 Merrimon Ave., Asheville, N. C. (Elected Oct. 10, 1921.) (Age 30. Born New York City.) 1918 B. S. in C. E., Cooper Union. *TT 2: SP 2.* June 1918 to Nov. 1923 with Western Carolina Power Co., until May 1919 as Field Draftsman on topographic survey, then drafting estimates, highway culvert and bridge design in construction office (2½ years), Topographer in charge of survey party (over 2 months), Instrumentman on property survey and construction (6 months) and Asst. Engr. on construction of hydro-electric development (over 2 months); after June 1922 Res. Engr. in charge of construction of twelve reinforced concrete piers for railroad steel viaduct, also rock excavation forming natural spillway, hydro-electric development. *TT 5.4: P 5.4: RC 1.6: D 0.1.* Nov. 1923 to Aug. 1924 Asst. Engr. and Acting Res. Engr., Southern Power Co., in charge of field work on preliminary survey and investigation and on construction of 40 000-h. p. steam electric power station. *TT 0.8: P 0.8: RC 0.8.* Oct. 1924 to Jan. 1925 Asst. Engr., City of Salisbury, N. C., locating and mapping streets and compiling tax assessments for new improvement district. *TT 0.3: P 0.3: RC 0.3.* Feb. to May 1925 Structural Draftsman, Westchester County (N. Y.) Parkway Comm., detailing steel and reinforced concrete bridges and assisting in working up standard designs. *TT 0.3: P 0.3.* May 1925 to March 1926 Structural Detailer and Checker, Southern Eng. Co., detailing and checking structural steel buildings. *TT 0.8: P 0.8: D 0.1.* March 1926 to date Chf. Structural Engr., S. Sternberg & Co., Engrs., Fabricators and Erectors, in charge of Eng. Dept. design and supervision of design of structural steel buildings for garages, offices, apartments, industrial, school and warehouse, reinforced concrete warehouse (5 stories), elevated reinforced concrete reservoir (250 000 gal.) and 320-ft. steel viaduct for city street. *TT 0.8: P 0.8: RC 0.8: D 0.8.* *TT 10.4: SP 2: P 3.4: RC 3.5: D 1.* Refers to E. W. Cole, F. H. Cothran, T. A. Cox, Jr., C. E. Legris, D. F. Noyes.

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(7) **GOULD, EDWIN FISH**, Jun., State Journal Bldg., Madison, Wis. (Elected Jan. 17, 1921.) (Age 31. Born Superior, Wis.) 1917 B. S., Univ. of Wis. *TT 2: SP 2.* May 1919 to date with Mead & Seastone, Cons. Engrs., Madison, Wis., until April 1921 as Asst. Engr. computing and estimating, in responsible charge of field work on water power on Missouri River in South Dakota, and on estimates, designs, etc., for Missouri River Report; April 1921 to April 1922 and June 1923 to Sept. 1924 Res. Engr., on construction of Pine River hydro-electric plant for Peninsular Power Co. (1 year), and of dam and power-house substructure at Iron Mountain, Mich. for Ford Motor Co.; April 1922 to June 1923 Asst. Engr. on designs, estimates, field work, etc.; since Sept. 1924 Engr. on design and office supervision of construction, estimates, reports, etc. *TT 7.8: SP 0.5: P 7.3: RC 4.7: D 1.1.* *TT 9.8: SP 2.5: P 7.3: RC 4.7: D 1.1.* Refers to L. R. Balch, D. W. Mead, C. V. Seastone, R. G. Walter, C. N. Ward.

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(13) HANSEN, REINHOLD BERNHARD, Jun., 3928 Foothill Boulevard, Oakland, Cal. (Elected Oct. 10, 1921.) (Age 31. Born San Francisco, Cal.) 1917 B. S. in C. E., Univ. of Cal. TT 2: SP 2. June to Sept. 1916 Office Engr., Pacific Telephone & Telegraph Co., San Francisco, Cal., on electrical measurements and calculations. Dec. 1916 to Jan. 1917 Field and Office Engr., and Dec. 1920 to May 1926 Civ. Engr., Standard Oil Co., on design, construction and maintenance of oil-refinery facilities, first at Richmond, Cal., and after Dec. 1920 at San Francisco. TT 5.6: SP 2.6: P 3: RC 3: D 3.1. May to Aug. 1917 Field Engr., and April to Aug. 1920 Chf. of Party in responsible charge, Western Pacific R. R. Co., San Francisco, location and construction. TT 0.7: SP 0.1: P 0.6: RC 0.6: D 0.1. Aug. 1917 to April 1919 Shop Foreman, Bethlehem Shipbuilding Corporation, Alameda, Cal., in responsible charge of structural steel fabrication and erection. TT 1.8: P 1.8: RC 1.8. April 1919 to April 1920 Head Draftsman, at Oakland, Cal., in charge of Western Div. drafting room on construction and maintenance, and Aug. to Dec. 1920 Office Engr., at San Francisco, designing and detailing structures, with Southern Pacific Co. TT 1.3: SP 0.3: P 1: RC 1: D 0.8. May 1926 to date Chf. Clerk, The Magnavox Co., Oakland, in charge of Cost Accounting, Production, Timekeeping, Material Storage, Shipping, Transportation and Personnel Department, also on plans for new factory. TT 0.8: P 0.8: RC 0.8. TT 12.3: SP 5.3: P 7: RC 7: D 4. Refers to C. Derleth, Jr., A. J. Eddy, F. S. Foote, C. G. Hyde, B. Jameyson, C. H. Snyder.

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(11) HINES, FRANK MATTHEWS, Jun., Care, San Diego Water Development Dept., Ramona, Cal. (Elected March 16, 1925.) (Age 25. Born in LaPorte County, Ind.) 1924 B. S., Univ. of S. Cal. TT 2: SP 2. Jan. 1917 to April 1918 and Jan. to Sept. 1919 Timekeeper, Bookkeeper and Asst. Storekeeper, railroad car construction, General American Car Corporation, East Chicago, Ind. TT 2: SP 1.3: P 0.7: RC 0.7. June to Sept. 1921 Grader and Chainman, Arizona Highway Comm. June to Sept. 1922 Chainman, Topographer and Instrumentman, Sugar Pine (Cal.) R. R. Feb. 1923 to June 1924 (part of time) and Oct. 1924 to April 1926 in engineering offices of J. B. Lippincott, Los Angeles, Cal., until June 1924 as Draftsman, Hydrographer, Chainman, Topographer and (June to Oct. 1923) Chf. of Party on pipe-line location; Oct. to Nov. 1924 Inspector, steel and concrete pipe-line construction; Nov. to Dec. 1924 Asst. to Res. Engr., hydraulic fill dam construction; Dec. 1924 to April 1926 Draftsman and Chf. of Party, design, location and construction of gravity and pressure conduits and hydraulic structures. TT 1.5: P 1.5: RC 1.1: D 1. April to Nov. 1926 Draftsman, design of sewage-disposal and water systems, Southlands Corporation, San Diego, Cal. TT 0.6: P 0.6: D 0.6. Nov. 1926 to date with Water Development Dept., City of San Diego on design and detail of dams and hydraulic structures, in charge of Ramona (Cal.) office, at present Asst. Res. Engr. on Sutherland Dam (construction not started). TT 0.4: P 0.4: RC 0.4: D 0.4. TT 6.5: SP 3.3: P 3.2: RC 2.2: D 2. Refers to G. Cromwell, R. A. Floyd, R. M. Fox, W. S. Post, F. D. Pyle, K. Q. Volk.

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(1) JOHNSON, JOHN GUNNAR AMANDUS, Jun., 1294 Schenectady Ave., Brooklyn, N. Y. (Elected April 7, 1924.) (Age 30. Born New York City.) 1919 C. E., Chalmers' Inst. Tech., Sweden. TT 2: SP 2. June-Aug. 1913-1918 Rodman, Instrumentman and Inspector on railroad, power plant and stadium work in Lapland, and Gothenburg, Sweden. June 1919 to Nov. 1921 Asst. Engr., Dept. of Public Works, Gothenburg, on design and construction of streets, sewers and bridges. TT 2.4: P 2.4: RC 1: D 1.4. Dec. 1921 to Feb. 1923 Draftsman with Robinson & Steinman, New York City, on bridge computations, assisted in preparing technical papers and handbooks, design and computations for eye-bar suspension bridge at Florianopolis, Brazil. TT 1.2: P 1.2: D 1.2. Feb. to July 1923 Draftsman, Thomas E. Murray, Inc., New York City, steel design, detailing and checking shop plans for Hell Gate and Hudson Ave. power stations, New York City. TT 0.4: P 0.4: D 0.4. July 1923 to Feb. 1924 Designer with Robinson & Steinman, on competitive design of 1 650-ft. suspension bridge, Sydney, New South Wales, computations and details for cantilever bridge at Carquinez Straits, Cal., calculations and design of cable construction plans for Philadelphia-Camden and Bear Mountain suspension bridges. TT 0.6: P 0.6: RC 0.4: D 0.2. Feb. 1924 to date Designer with Modjeski & Moran, New York City, cable tower and stiffening truss calculations, designing and detailing steel, reinforced concrete and masonry for 1 500-ft. suspension bridge at Poughkeepsie, N. Y.; checked contractors' plans for east approach, anchorages and river piers and building plans for Western Elec. Co.'s manufacturing plant at Kearny, N. J.; preliminary report for 1 550-ft. suspension bridge over Boston Harbor; calculation for concrete arch bridge at Harrisburg, Pa.; computations, design and detailing of sub- and super-structures and contract plans for combined highway and railway cantilever bridge over

Mississippi River at New Orleans. *TT 2.9: P 2.9: RC 2: D 0.9. TT 9.5: SP 2: P 7.5: RC 3.4: D 4.1.* Refers to W. E. Joyce, F. M. Masters, R. Modjeski, D. E. Moran, H. D. Robinson, D. B. Steinman, G. B. Woodruff.

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(9) **ROSS, CHARLES RAYMOND**, Jun., Bowling Green State Normal Coll., Bowling Green, Ohio. (Elected Aug. 31, 1925.) (Age 29. Born London, Ohio.) LL. B., and 1925 B. C. E., Ohio State Univ. *TT 2: SP 2.* March 1917 to Aug. 1918 Demolition Engr., 104th Engrs., 29th Div., U. S. Army, emergency engineering on roads, raids, bridges and trenches, A. E. F. *TT 1.4: SP 1.4.* Nov. 1918 to Oct. 1919 Foreman and Asst. Supt., Grant-Boulton Co., Columbus, Ohio, Joyce Ave. Viaduct, concrete trestles and dumping floors, Franklin Furnace No. 1, sewage collection, Worthington, Ohio. *TT 0.9: SP 0.3: P 0.6: RC 0.6.* Oct. 1919 to March 1925 (while student) Jun. Partner, Ross & Ross, Columbus, estimating and contracting buildings, houses, roads and heavy hauling; also Bldg. Supt., Watts-Suhrbier Co., Toledo, Ohio, Fulton St. School, Columbus, Walnut Township Centralized School, Ashville, Ohio (May 1920 to Jan. 1921); Oct. 1921 Labor Foreman, E. H. Latham Co., Columbus, State University Stadium (June to Oct. 1921) and drafting and Road Inspector, Ohio Highway Dept., Portsmouth-Columbus Road, Franklin County (Jan. to Oct. 1924). April 1925 to date State Field Supt., State Archt. and Engr., Columbus, in charge of surveying and construction work on streets, sewers, tunnels, grading, boiler installations and buildings (total over \$700 000). *TT 1.8: P 1.8: RC 1.8. TT 6.2: SP 3.7: P 2.5: RC 2.5.* Refers to V. A. Eberly, J. H. Fleming, L. Lee, L. L. LeVeque, J. C. Prior, R. M. Strohl.

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(1) **ZUSI, CHARLES JOSEPH**, Jun., Box 576, Rockaway, N. J. (Elected May 28, 1923.) (Age 28. Born Newark, N. J.) 1921 B. S. in C. E., Cooper Union (Night School of Science). April 1914 to Aug. 1917 Gen. Asst. in field and office, with Harrison R. Van Duyne, Civ. Engr. and Surveyor, being Rodman, Transitman and Draftsman. *TT 3.3: SP 3.3.* Aug. 1917 to June 1918 with New Jersey State Highway Dept., as Rodman, Transitman (Jun. Engr.) on surveys, Draftsman on design of highways, and Computer on estimates of quantities and costs. *TT 0.9: SP 0.9.* June to Oct. 1918 and Dec. 1918 to April 1919 with Morris R. Sherrerd, Cons. Engr., as Draftsman on design of water-works and Chf. of Party on survey of damsite. *TT 0.7: SP 0.7.* Oct. to Dec. 1918 with U. S. Army. April 1919 to Dec. 1922 with North Jersey Dist. Water Supply Comm., as Draftsman on design of Wanaque Water Supply System, including work on dam, pipe-line, tunnel, relocation of highways and railroads, studies of runoff, consumption, etc.; last year Asst. Engr. on design of details of dam construction and tunnel. *TT 3.7: SP 0.7: P 3: RC 1: D 1.* Dec. 1922 to Dec. 1924 Engr., Freight Container Bureau, American Ry. Association, on investigation of boxes, crates, etc., to study conditions of packing, shipping and delivery, study of materials and construction, design of containers and writing specifications for shippers and transportation companies. *TT 1.9: P 1.9: RC 1.9: D 1.9.* Dec. 1924 to date Vice-Pres. and Asst. Chf. Engr. in complete charge of testing laboratory, Container Testing Laboratories, Inc., design and redesign of containers and container accessories, design of shipping rooms, complete investigations of new containers and new container designs; expert testimony before Railway Classification Committees. *TT 2.1: P 2.1: RC 2.1: D 2.1. TT 12.6: SP 5.6: P 7: RC 5. D 5.* Refers to F. A. Baker, H. F. Finck, N. C. Holdredge, A. H. Pratt, A. L. Sherman, M. R. Sherrerd, F. W. Tooker, D. W. Zelliff.

The Board of Direction will consider the applications in this list not less than thirty days after the date of its issue.